

# Soil Boring Log

**Boring No.: DB-1**  
**Monitoring Well No.: DB-1**

URS No. DB-1

<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania			<b>Date Started:</b> 11/29/07 <b>Date Finished:</b> 11/29/07		
<b>Survey</b> N256157.90 <b>Location:</b> E2721517.60	<b>Ground Elevation:</b> 6.00 ft.	<b>Inner Casing Elevation:</b> ft.	<b>Outer Casing Elevation:</b> ft.		

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
5.8		Asphalt		11		0.3		
		Brown fine-coarse Silty SAND, some fine to coarse angular gravel, dense-very dense, dry		17		0.2		
				50				
4.5		CONCRETE		/5	Auger			
				50	Auger			
3.0		Black gravelly fine-coarse SAND, intermittent brick fragments, very loose, saturated		/5	Auger		▼	
				1		260		
				1	low rec			
				1	low rec			
5				50				
0.5		CONCRETE		/4		483		
0.0		Dark gray to brown Silty fine-medium SAND, wet, loose			Auger			
				2		223		
				1				
				3		55.8		
		Trace brick frags and fine-medium rounded gravel		1				
				4		502		
				3				Analytical soil sample collected from 8.0-9.0 feet
				3		57.1		

Notes:

ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected  
bgs = below ground surface      N/W = No Well Installed      ▼ = water level at completion

Driller: Eichelbergers - Mike Martinez	Depth to Water: 3.00 ft bgs
Drilling Method: CME 75 HSA	Date of Measurement: 11/29/2007
Field Inspector: J. Bridge/ M. Pitchford	Project No.: 19997570.00003



[illegible]

URS No. DB-1



# Soil Boring Log

**Boring No.: DB-2**  
**Monitoring Well No.: N/W**

URS No. DB-2

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 11/28/07  
**Date Finished:** 11/28/07

**Survey** N256110.20  
**Location:** E2721498.60

**Ground**  
**Elevation:** 5.90 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	5.7	Asphalt						
		Light brown fine-coarse SAND and GRAVEL, dense, dry		12		1.0		
	5.0	Dark brown Clayey fine-coarse SAND and GRAVEL, dense, dry		12				
				9		0.5		
				10				
				9		0.4		
	3.1	Light gray medium SAND with brick fragments, loose, wet		7			▼	
	2.9	Dark brown Clayey fine-coarse SAND with gravel fragments, medium dense, saturated		5		0.6		
	1.9	Brown to dark brown Clayey fine-coarse SAND with gravel, brick, and wood fragments, very loose, saturated		5				
				2		0.4		
5				1				
				1		10.4		
				1				
				1		95.5		
				1				
				1		142		Analytical soil sample collected from 7.0-8.0 feet
				2				
				1		89.5		
				4				
	-3.8	Gray Silty CLAY, medium plasticity, medium stiff, moist		9		4895		Analytical soil sample collected from 9.0-10.0 feet

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers - Mike Martinez

Depth to Water: 3.00 ft bgs

Drilling Method: CME 75 HSA

Date of Measurement: 11/28/2007

Field Inspector: J. Bridge/ M. Pitchford

Project No.: 19997570.00003



[illegible]

R&amp;H 2 OF 2.GPJ ANITEC-25FT 9/12/08



# Soil Boring Log

Boring No.: DB-3 / SB-140

Monitoring Well No.: N/W

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 11/28/07  
**Date Finished:** 11/28/07

**Survey** N256114.90  
**Location:** E2721531.80

**Ground**  
**Elevation:** 5.90 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
5.7		Asphalt						
		Brown to dark brown Clayey fine-coarse SAND with gravel, very dense, dry		36		2.2		
				29				
				13		0.5		Analytical soil sample collected from 0.0-2.0 feet
				10				
				2		19.3		
		Saturated at 3 feet		5			▼	
				3		33.9		
				3				
				2		209		
5				1				
				1		146		
0.1		Gray medium SAND, loose, saturated		1				
-0.1		Dark brown to black Clayey fine-coarse SAND with gravel and brick fragments, very loose, saturated						
				woh		34.1		
				woh				
				woh		83.9		
				7				
				woh		1139		Analytical soil sample collected from 8.0-9.0 feet
				woh				Analytical soil sample collected from 9.0-10.0 feet
				1		7665		
-4.1								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers - Mike Martinez

Depth to Water: 3.00 ft bgs

Drilling Method: CME 75 HSA

Date of Measurement: 11/28/2007

Field Inspector: J. Bridge/ M. Pitchford

Project No.: 19997570.00003



Soil Boring Log						Boring No.: DB-3 / SB-140 Monitoring Well No.: N/W					
<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania					<b>Date Started:</b> 11/28/07 <b>Date Finished:</b> 11/28/07						
<b>Survey Location:</b> N256114.90 E2721531.80			<b>Ground Elevation:</b> 5.90 ft.		<b>Inner Casing Elevation:</b> ft.				<b>Outer Casing Elevation:</b> ft.		
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION				LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	-6.1	Gray Silty CLAY, medium-high plasticity, medium stiff, saturated					1				
							2		2686		
							2				
							2		8995		
							3				
15		End of Boring at 12 feet bgs									
Notes: ppm = parts per million                  bpf = blows per foot                  (a) = Analytical sample collected bgs = below ground surface        N/W = No Well Installed                  ▼ = water level at completion											
Driller: Eichelbergers - Mike Martinez Drilling Method: CME 75 HSA Field Inspector: J. Bridge/ M. Pitchford						Depth to Water: 3.00 ft bgs Date of Measurement: 11/28/2007 Project No.: 19997570.00003					

URS No. DB-3 / SB-140



# Soil Boring Log

**Boring No.: DB-4**  
**Monitoring Well No.: N/W**

URS No. DB-4

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 11/29/07  
**Date Finished:** 11/29/07

**Survey** N256140.70  
**Location:** E2721576.30

**Ground**  
**Elevation:** 6.00 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
5.8		Asphalt						
		Brown to gray fine-coarse Silty SAND and fine-coarse angular and rounded GRAVEL, dense, dry		13		0.7		
				18				
				13		27.7		
4.0		CONCRETE		50				
				/5				
				NA				
				NA				
2.0		Dark brown to Dark gray fine-coarse Gravelly SAND, very dense, saturated		NA			▼	
				31		10.2		
5				17				
				3		357		
0.0		Reddish orange to Light brownish gray fine-coarse Gravelly SAND, very dense, saturated		3				
				1		56.5		
				1				
				1		181		
				4				
				4		82.5		
				2				
				3		705		Analytical soil sample collected from 9.0-10.0 feet
-4.0								

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichelbergers - Mike Martinez  
**Drilling Method:** CME 75 HSA  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 4.00 ft bgs  
**Date of Measurement:** 11/29/2007  
**Project No.:** 19997570.00003



# Soil Boring Log

**Boring No.: DB-4**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 11/29/07  
**Date Finished:** 11/29/07

**Survey** N256140.70  
**Location:** E2721576.30

**Ground**  
**Elevation:** 6.00 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Reddish brown fine-medium Clayey SAND with trace coarse angular gravel, medium dense, saturated		9				
				9		28.6		
				8				
				4		510		
	-6.0	Reddish brown to Dark gray Sandy CLAY, stiff, saturated		3				
				4		342		
				2				
				1		421		
	-8.0	Gray to brown fine-coarse Gravelly SAND, trace wood fragments, dense, saturated		6				
				7		363		
15				11				
				7		2369		
		Note: Strong odor, no wood fragments		7				Analytical soil sample collected from 15.0-16.0 feet
				4		334		
				3				
				2		339		
	-12.0	Dark gray Silty CLAY with trace organics, soft-medium stiff, saturated		2				
				3		224		
				2				
				2		277		Analytical soil sample collected from 19.0-20.0

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers - Mike Martinez  
Drilling Method: CME 75 HSA  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 4.00 ft bgs  
Date of Measurement: 11/29/2007  
Project No.: 19997570.00003

URS No. DB-4



# Soil Boring Log

**Boring No.: DB-4**  
**Monitoring Well No.: N/W**

URS No. DB-4

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 11/29/07  
**Date Finished:** 11/29/07

**Survey** N256140.70  
**Location:** E2721576.30

**Ground**  
**Elevation:** 6.00 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	-15.0	Dark gray Silty CLAY with trace organics, soft-medium stiff, saturated		2		82		feet
		End of Boring at 21 feet bgs		1				
25				1				

## Notes:

ppm = parts per million  
bgs = below ground surface

bpf = blows per foot  
N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichelbergers - Mike Martinez  
**Drilling Method:** CME 75 HSA  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 4.00 ft bgs  
**Date of Measurement:** 11/29/2007  
**Project No.:** 19997570.00003



# Soil Boring Log

**Boring No.: DB-5**  
**Monitoring Well No.: N/W**

URS No. DB-5

**Project:** Rohm and Haas Philadelphia Plant  
 Philadelphia, Pennsylvania

**Date Started:** 11/30/07  
**Date Finished:** 11/30/07

**Survey** N256087.80  
**Location:** E2721592.50

**Ground**  
**Elevation:** 5.90 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	5.7	Asphalt		20		0.0		
		Dark brown to black fine-coarse Silty SAND, trace fine-coarse angular gravel, very dense, dry		17				
				11		4.9		
	3.9			8			▼	
	3.8	Brick fragments, dry		8		26.5		
		Black fine-coarse Silty SAND with wood fragments, medium dense, saturated		6				
				4		wood		
				50				
				/5				
				36		wood		
5				14				
				7		64.9		
		Fine-coarse angular gravel		5				
				5		203		
		Note: Strong odor		5				
				6		76.8		
				10				
				4		189		
	-3.1			6				
		Light brown to reddish brown fine-coarse Silty SAND and fine-coarse rounded GRAVEL, medium dense, saturated, strong odor		10		1655		Analytical soil sample collected from 9.0-10.0 feet
	-4.1							

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers - Mike Martinez

Depth to Water: 2.00 ft bgs

Drilling Method: CME 75 HSA

Date of Measurement: 11/30/2007

Field Inspector: J. Bridge/ M. Pitchford

Project No.: 19997570.00003



Soil Boring Log						Boring No.: DB-5 Monitoring Well No.: N/W			
<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania					<b>Date Started:</b> 11/30/07 <b>Date Finished:</b> 11/30/07				
<b>Survey Location:</b> N256087.80 E2721592.50		<b>Ground Elevation:</b> 5.90 ft.		<b>Inner Casing Elevation:</b> ft.			<b>Outer Casing Elevation:</b> ft.		
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS	
-5.1		Light brown to reddish brown fine-coarse Silty SAND, medium dense, saturated	[Pattern]	7		2124		Analytical soil sample collected from 10.0-11.0 feet	
-6.1		Gray Silty CLAY, trace fine sand, trace organics, strong odor	[Pattern]	3		1251			
		End of Boring at 12 feet bgs		2					
				1					
Notes: ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected bgs = below ground surface    N/W = No Well Installed      ▼ = water level at completion									
Driller: Eichelbergers - Mike Martinez				Depth to Water: 2.00 ft bgs					
Drilling Method: CME 75 HSA				Date of Measurement: 11/30/2007					
Field Inspector: J. Bridge/ M. Pitchford				Project No.: 19997570.00003					

R&amp;H 2 OF 2.GPJ ANITEC-25FT 9/12/08



# Soil Boring Log

**Boring No.: DB-6**  
**Monitoring Well No.: N/W**

URS No. DB-6

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 11/30/07  
**Date Finished:** 11/30/07

**Survey** N256097.00  
**Location:** E2721699.40

**Ground**  
**Elevation:** 6.80 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	6.6	Asphalt						
		Brown to brownish gray fine-coarse Silty SAND and fine-coarse angular GRAVEL, very dense, dry		12		0.0		
				19				
				21		1.9		
		Intermittent brick fragments		30				
				35		122		
				50				
				/3				
		Intermittent wood fragments, moist		NA				
5				29		1649		Analytical soil sample collected from 4.0-5.0 feet
				17				
				9				
	0.8	Light brown to tan fine-coarse Silty SAND, medium dense, saturated grading to: Gray to orangish brown Sandy CLAY, stiff, saturated		3			▼	
				6		627		
				7				Analytical soil sample collected from 6.0-8.0 feet
				4		332		
	-1.2	Brown to gray Silty CLAY, trace fine sand, trace organics, medium stiff, saturated		3				
				2		276		
				1				
				1		88.2		
	-3.2							

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers - Mike Martinez  
Drilling Method: CME 75 HSA  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 6.00 ft bgs  
Date of Measurement: 11/30/2007  
Project No.: 19997570.00003



Soil Boring Log						Boring No.: DB-6 Monitoring Well No.: N/W						
<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania						<b>Date Started:</b> 11/30/07 <b>Date Finished:</b> 11/30/07						
<b>Survey Location:</b> N256097.00 E2721699.40			<b>Ground Elevation:</b> 6.80 ft.			<b>Inner Casing Elevation:</b> ft.				<b>Outer Casing Elevation:</b> ft.		
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION				LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS	
	-5.2	Gray to red to orangish brown mottled Silty CLAY, trace fine sand, trace organics, medium stiff, saturated					2					
							1		217			
							1					
							2		175			
							2					
15		End of Boring at 12 feet bgs										
Notes: ppm = parts per million                  bpf = blows per foot                  (a) = Analytical sample collected bgs = below ground surface        N/W = No Well Installed                  ▼ = water level at completion												
Driller: Eichelbergers - Mike Martinez Drilling Method: CME 75 HSA Field Inspector: J. Bridge/ M. Pitchford						Depth to Water: 6.00 ft bgs Date of Measurement: 11/30/2007 Project No.: 19997570.00003						

URS No. DB-6



# Soil Boring Log

Boring No.: DB-7

Monitoring Well No.: N/W

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 11/30/08  
**Date Finished:** 11/30/08

**Survey Location:** N256213.50  
E2721699.50

**Ground Elevation:** 6.40 ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Brownish gray fine to coarse Silty SAND, trace fine-coarse angular gravel, medium dense, dry		3		0.0		
				3				
				4		0.0		
		Saturated at 2 feet		3			▼	
				2		0.0		
				1				
				1		0.0		
2.4		Black fine to coarse Silty SAND, trace fine-coarse angular gravel, medium dense, saturated		1				
				2		0.3		Analytical soil sample collected from 7.0-9.0 feet
5				14				
				7		1.9		
				7				
				4		1.1		
				4				Analytical soil sample collected from 9.0-11.0 feet
				4		1.0		
-1.6		Black fine to coarse Silty SAND, some clay, medium dense, saturated		5				
				2		1.9		
				1				
				3		4.3		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers - Mike Martinez

Depth to Water: 2.00 ft bgs

Drilling Method: CME 75 HSA

Date of Measurement: 11/30/2008

Field Inspector: J. Bridge/ M. Pitchford

Project No.: 19997570.00003



[illegible]

URS No. DB-7



**Boring No.: SB-66**  
**Monitoring Well No.: N/W**

**Date Started:** 10/17/07  
**Date Finished:** 10/17/07

**Outer Casing**  
**Elevation:**            **ft.**

Depth to Water:	4.00 ft bgs
Date of Measurement:	10/17/2007
Project No.:	19997570.00003



# Soil Boring Log

Boring No.: SB-67  
Monitoring Well No.: N/W

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 10/17/07  
Date Finished: 10/17/07

Survey N256332.10  
Location: E2721716.90

Ground Elevation: 6.40 ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	6.1	Asphalt				0.0		
		Dark brown to black fine-coarse SAND with gravel and brick fragments, loose, dry				0.0		Analytical soil sample collected from 0.0-2.0 feet
		Moist at 2 feet				0.0		
		Saturated at 3.5 feet				0.0	▼	Analytical soil sample collected from 2.5-3.5 feet
5								
	-1.6	End of Boring at 8 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers - Mike Livingston  
Drilling Method: Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 3.50 ft bgs  
Date of Measurement: 10/17/2007  
Project No.: 19997570.00003



# Soil Boring Log

**Boring No.: SB-68**  
**Monitoring Well No.: N/W**

URS No. SB-68

<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania			<b>Date Started:</b> 10/17/07 <b>Date Finished:</b> 10/17/07		
<b>Survey</b> N256359.20 <b>Location:</b> E2721882.90		<b>Ground Elevation:</b> 7.20 ft.	<b>Inner Casing Elevation:</b> ft.		<b>Outer Casing Elevation:</b> ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	6.9	Asphalt				0.0		Analytical soil sample collected from 0.0-2.0 feet
		Dark brown to black fine-coarse SAND with gravel and brick fragments, loose, dry				0.0		
	5.2	Red SAND and GRAVEL (crushed brick), loose, dry				0.0		
						0.0		Analytical soil sample collected from 3.0-4.0 feet
5		Saturated at 4 feet					▼	
	0.2	End of Boring at 7 feet bgs						

Notes:

ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected

bgs = below ground surface      N/W = No Well Installed      ▼ = water level at completion

Driller: Eichelbergers - Mike Livingston	Depth to Water: 4.00 ft bgs
Drilling Method: Geoprobe	Date of Measurement: 10/17/2007
Field Inspector: J. Bridge/ M. Pitchford	Project No.: 19997570.00003



**Boring No.: SB-69**  
**Monitoring Well No.: N/W**

URS No. SB-69

[illegible]



# Soil Boring Log

**Boring No.: SB-70**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/17/07  
**Date Finished:** 10/17/07

**Survey** N256300.10  
**Location:** E2722019.00

**Ground**  
**Elevation:** 7.20 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	6.9	Asphalt				0.0		
		Dark brown to brown fine-coarse SAND with gravel and concrete fragments, loose, dry				0.0		Analytical soil sample collected from 0.0-2.0 feet
	4.7	Black fine-coarse SAND with gravel and brick fragments, loose, moist				0.0		
		Saturated at 4 feet				0.0	▼	Analytical soil sample collected from 3.0-4.0 feet
	-0.8	End of Boring at 8 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichelbergers - Mike Livingston  
**Drilling Method:** Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 4.00 ft bgs  
**Date of Measurement:** 10/17/2007  
**Project No.:** 19997570.00003



**Boring No.: SB-71**  
**Monitoring Well No.: N/W**

URS No. SB-71

<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania						<b>Date Started:</b> 10/17/07		<b>Date Finished:</b> 10/17/07		
<b>Survey Location:</b> N256261.80 E2721991.20			<b>Ground Elevation:</b> 7.20 ft.			<b>Inner Casing Elevation:</b> ft.			<b>Outer Casing Elevation:</b> ft.	
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS		
	6.9	Asphalt								
		Brown fine-coarse SAND with gravel fragments, loose, dry				0.0				
	6.2	Asphalt							Analytical soil sample collected from 0.0-2.0 feet	
	5.7	Dark brown to black fine-coarse SAND with gravel fragments loose, moist				15.9				
						2.6			Analytical soil sample collected from 2.0-3.0 feet	
						1.5				
		Saturated at 4 feet								
5										
	-0.8									
		End of Boring at 8 feet bgs								

Notes:

ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected
bgs = below ground surface    N/W = No Well Installed      = water level at completion

Driller: Eichelbergers - Mike Livingston	Depth to Water: 4.00 ft bgs
Drilling Method: Geoprobe	Date of Measurement: 10/17/2007
Field Inspector: J. Bridge/ M. Pitchford	Project No.: 19997570.00003



[illegible]

URS No. SB-72



# Soil Boring Log

Boring No.: SB-74  
Monitoring Well No.: N/W

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 10/17/07  
Date Finished: 10/17/07

Survey N256251.00  
Location: E2722161.80

Ground  
Elevation: 6.70 ft.

Inner Casing  
Elevation: ft.

Outer Casing  
Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	6.4	Asphalt				0.0		
		Brown to dark brown fine-coarse SAND with wood, concrete, and brick fragments, loose, dry				0.0		Analytical soil sample collected from 0.0-2.0 feet
						1.5		Analytical soil sample collected from 2.0-3.0 feet
		Moist at 3.7 feet Saturated at 4 feet Note: Oil sheen on water				0.0	▼	
5								
	-1.3	End of Boring at 8 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers - Mike Livingston  
Drilling Method: Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 4.00 ft bgs  
Date of Measurement: 10/17/2007  
Project No.: 19997570.00003



# Soil Boring Log

**Boring No.: SB-75**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/16/07  
**Date Finished:** 10/16/07

**Survey** N256262.10  
**Location:** E2722217.00

**Ground**  
**Elevation:** 5.90 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Gray to dark gray fine-coarse SAND with gravel, loose, dry				0.0		
						1.8		Analytical soil sample collected from 0.0-2.0 feet
		Moist-wet at 3 feet				0.9		
		Saturated at 4 feet				3.6		Analytical soil sample collected from 3.0-4.0 feet
1.9		End of Boring at 4 feet bgs					▼	
5								

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichelbergers - Mike Livingston  
**Drilling Method:** Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 4.00 ft bgs  
**Date of Measurement:** 10/16/2007  
**Project No.:** 19997570.00003



Soil Boring Log						Boring No.: SB-76 Monitoring Well No.: N/W			
<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania					<b>Date Started:</b> 11/20/07 <b>Date Finished:</b> 11/20/07				
<b>Survey Location:</b> N256196.90 E2722193.50		<b>Ground Elevation:</b> 7.50 ft.		<b>Inner Casing Elevation:</b> ft.			<b>Outer Casing Elevation:</b> ft.		
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS	
7.0		Asphalt		Aug		0.0			
		CONCRETE		Aug					
				Aug		0.0			
				Aug					
4.0		Dark brown fine-coarse SAND with gravel fragments, loose, moist		3		0.0			
		Saturated at 4.5 feet		7					
				4		804	▼	Analytical soil sample collected from 3.5-4.5 feet	
				5					
-0.5		End of Boring at 8 feet bgs						Analytical groundwater sample collected at 8.0 feet	
Notes: ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected bgs = below ground surface    N/W = No Well Installed      ▼ = water level at completion									
Driller: Eichelbergers - Mike Martinez Drilling Method: CME 75 HSA Field Inspector: J. Bridge/ M. Pitchford					Depth to Water: 4.50 ft bgs Date of Measurement: 11/20/2007 Project No.: 19997570.00003				

URS No. SB-76



# Soil Boring Log

Boring No.: SB-79  
Monitoring Well No.: N/W

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 10/17/07  
Date Finished: 10/17/07

Survey N256201.40  
Location: E2722058.50

Ground Elevation: 7.00 ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	6.7	Asphalt						
		Dark brown to black fine-coarse SAND with gravel, loose, dry				0.0		
	5.5					0.8		Analytical soil sample collected from 0.0-2.0 feet
	5.0	Asphalt						
		Black fine-coarse SAND with gravel and brick fragments, moist				0.0		
						0.0		Analytical soil sample collected from 3.0-4.0 feet
		Saturated at 4 feet					▼	
5	2.0	End of Boring at 5 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers - Mike Livingston  
Drilling Method: Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 4.00 ft bgs  
Date of Measurement: 10/17/2007  
Project No.: 19997570.00003



# Soil Boring Log

Boring No.: SB-80  
Monitoring Well No.: N/W

URS No. SB-80

<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania			<b>Date Started:</b> 11/16/07 <b>Date Finished:</b> 11/16/07		
<b>Survey</b> N256159.00 <b>Location:</b> E2721969.80	<b>Ground Elevation:</b> 7.00 ft.	<b>Inner Casing Elevation:</b> ft.	<b>Outer Casing Elevation:</b> ft.		

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
6.8		Asphalt						
6.3		Brown Clayey fine-coarse SAND with gravel and brick fragments, medium dense, dry		31		0.0		
6.0		CONCRETE		50				
		Brown to dark brown Clayey fine-coarse SAND with gravel and brick fragments, medium dense, dry		2		0.0		
				2		0.0		
				2		0.0		
		Saturated at 3 feet		7			▼	
				4		0.0		
				2				
				1		0.0		
5	2.0	End of Boring at 5 feet bgs		4				

Notes:  
 ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected  
 bgs = below ground surface      N/W = No Well Installed      ▼ = water level at completion

Driller: Eichelbergers - Mike Martinez	Depth to Water: 3.00 ft bgs
Drilling Method: CME 75 HSA	Date of Measurement: 11/16/2007
Field Inspector: J. Bridge/ M. Pitchford	Project No.: 19997570.00003



**Boring No.: SB-81**  
**Monitoring Well No.: N/W**

URS No. SB-81

[illegible]



Soil Boring Log				Boring No.: SB-82				
				Monitoring Well No.: N/W				
Project: Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania			Date Started: 10/16/07 Date Finished: 10/16/07					
Survey N256085.70 Location: E2722129.30		Ground Elevation: 6.10 ft.		Inner Casing Elevation: ft.		Outer Casing Elevation: ft.		
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
5	5.6	Asphalt				0.0		
		Gray to dark gray fine-coarse SAND with gravel, loose, dry-moist				0.0		Analytical soil sample collected from 0.0-2.0 feet
						0.0		
						0.0		
		Saturated at 4 feet					▼	Analytical soil sample collected from 3.0-4.0 feet
	-1.9	End of Boring at 8 feet bgs						
Notes: ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected bgs = below ground surface      N/W = No Well Installed      ▼ = water level at completion								
Driller:Eichelbergers - Mike Livingston				Depth to Water: 4.00 ft bgs				
Drilling Method: Geoprobe				Date of Measurement: 10/16/2007				
Field Inspector: J. Bridge/ M. Pitchford				Project No.: 19997570.00003				

URS No. SB-82



# Soil Boring Log

**Boring No.: SB-83**  
**Monitoring Well No.: N/W**

URS No. SB-83

<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania			<b>Date Started:</b> 11/13/07 <b>Date Finished:</b> 11/13/07		
<b>Survey</b> N256112.80 <b>Location:</b> E2722213.80		<b>Ground Elevation:</b> 6.70 ft.	<b>Inner Casing Elevation:</b> ft.		<b>Outer Casing Elevation:</b> ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
6.4		Asphalt						
6.0		Light brown to brown Clayey fine-coarse SAND with gravel and brick fragments, medium dense, dry		19		0.0		Analytical soil sample collected from 0.0-2.0 feet
		CONCRETE		50				
				2		0.0		
				Aug				
				Aug				
				Aug		0.0		
3.7		Dark brown fine-coarse SAND with gravel , medium dense, saturated at 3 feet		Aug			▼	
				3				
				3				
				3				
1.7				3				
5		End of Boring at 5 feet bgs						

Notes:

ppm = parts per million
bpf = blows per foot
(a) = Analytical sample collected

bgs = below ground surface
N/W = No Well Installed
▼ = water level at completion

Driller: Eichelbergers - Mike Martinez	Depth to Water: 3.00 ft bgs
Drilling Method: CME 75 HSA	Date of Measurement: 11/13/2007
Field Inspector: J. Bridge/ M. Pitchford	Project No.: 19997570.00003



# Soil Boring Log

**Boring No.: SB-84**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 11/13/07  
**Date Finished:** 11/13/07

**Survey** N256048.40  
**Location:** E2722206.90

**Ground**  
**Elevation:** 9.20 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	8.9	Asphalt						
		Light brown to brown Clayey fine-coarse SAND with gravel and quartz fragments, dense, dry		6		9.2		
	7.8			18				
	7.4	Light brown medium SAND, dense, dry		11		0.0		Analytical soil sample collected from 0.0-2.0 feet
		Brown Clayey fine-coarse SAND, medium dense, dry		14				
	6.6			6		1.0		Analytical soil sample collected from 2.0-2.5 feet
		CONCRETE		50				
	5.7			1/6				
		End of Boring at 3.5 feet bgs	Auger					Note: Groundwater not encountered

## Notes:

ppm = parts per million  
bgs = below ground surface

bpf = blows per foot  
N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichelbergers - Mike Martinez  
**Drilling Method:** CME 75 HSA  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** ft bgs  
**Date of Measurement:** 11/13/2007  
**Project No.:** 19997570.00003



# Soil Boring Log

**Boring No.: SB-86**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
 Philadelphia, Pennsylvania

**Date Started:** 10/18/07  
**Date Finished:** 10/18/07

**Survey** N256026.90  
**Location:** E2722056.70

**Ground Elevation:** 6.20 ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Dark brown to black fine-coarse SAND with gravel, brick, and wood fragments, dry				0.0		
	4.2	Moist at 1.7 feet Saturated at 2 feet End of Boring at 2 feet bgs				0.0	▼	Analytical soil sample collected from 0.0-2.0 feet
5								Analytical groundwater sample collected at 6.0 feet

## Notes:

ppm = parts per million      bpf = blows per foot  
 bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
 ▼ = water level at completion

**Driller:** Eichelbergers - Mike Livingston  
**Drilling Method:** Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 2.00 ft bgs  
**Date of Measurement:** 10/18/2007  
**Project No.:** 19997570.00003



# Soil Boring Log

**Boring No.: SB-87**  
**Monitoring Well No.: N/W**

URS No. SB-87

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/18/07  
**Date Finished:** 10/18/07

**Survey** N256086.40  
**Location:** E2721946.30

**Ground**  
**Elevation:** 6.80 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	6.5	Asphalt						
		Brown to dark brown Clayey fine-coarse SAND, medium dense, dry-moist				0.0		Analytical soil sample collected from 0.0-2.0 feet
						0.0		
						0.0		
						0.0		Analytical soil sample collected from 3.0-4.0 feet
5		Saturated at 4 feet					▼	
								Analytical groundwater sample collected at 8.0 feet
	-0.9	Greenish gray Clayey coarse SAND, with intermittent white silt lenses, soft, wet						
	-1.2	End of Boring at 8 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichelbergers - Mike Livingston  
**Drilling Method:** Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 4.00 ft bgs  
**Date of Measurement:** 10/18/2007  
**Project No.:** 19997570.00003



[illegible]

URS No. SB-88



# Soil Boring Log

**Boring No.: SB-89**  
**Monitoring Well No.: N/W**

URS No. SB-89

<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania			<b>Date Started:</b> 10/11/07 <b>Date Finished:</b> 10/11/07		
<b>Survey</b> N255894.00 <b>Location:</b> E2722149.30	<b>Ground Elevation:</b> 7.90 ft.	<b>Inner Casing Elevation:</b> ft.	<b>Outer Casing Elevation:</b> ft.		

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	7.6	Asphalt						
		Dark gray fine-coarse Silty SAND and fine-coarse angular GRAVEL				0.0		Analytical soil sample collected from 0.0-2.0 feet
						0.0		
						0.0		
	4.9	Red Silty CLAY with brick fragments, some light brown coarse sand, dry				0.0		Analytical soil sample collected from 3.0-4.0 feet
	4.0	Black fine-coarse Silty SAND with fine-coarse angular gravel, saturated at 4 feet					▼	
5	2.9	End of Boring at 5 feet bgs						

Notes:

ppm = parts per million
bpf = blows per foot
(a) = Analytical sample collected

bgs = below ground surface
N/W = No Well Installed
▼ = water level at completion

Driller: Eichelbergers - Mike Livingston	Depth to Water: 4.00 ft bgs
Drilling Method: Geoprobe	Date of Measurement: 10/11/2007
Field Inspector: J. Bridge/ M. Pitchford	Project No.: 19997570.00003



# Soil Boring Log

**Boring No.: SB-90**  
**Monitoring Well No.: N/W**

URS No. SB-90

<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania			<b>Date Started:</b> 10/11/07 <b>Date Finished:</b> 10/11/07					
<b>Survey</b> N255950.40 <b>Location:</b> E2721900.70		<b>Ground</b> <b>Elevation:</b> 8.10 ft.	<b>Inner Casing</b> <b>Elevation:</b> ft.			<b>Outer Casing</b> <b>Elevation:</b> ft.		
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
5	7.6	Asphalt						
		Brown grading to black fine-coarse Silty SAND with fine-medium angular gravel and trace clay, dry				0.0		Analytical soil sample collected from 0.0-2.0 feet
						0.0		
						0.0		
	5.1	Light brown fine-coarse Silty SAND, dry						
	4.6	Dark gray to black fine-medium Silty SAND with fine-coarse angular gravel, moist				0.0		Analytical soil sample collected from 3.0-4.0 feet
	3.7	Black to dark grayish green Clayey fine-coarse SAND with intermittent wood fragments, saturated at 4 feet						Note: Strong petroleum odor
		0.1						
		End of Boring at 8 feet bgs						

## Notes:

ppm = parts per million  
bgs = below ground surface

bpf = blows per foot  
N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers - Mike Livingston  
Drilling Method: Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 4.00 ft bgs  
Date of Measurement: 10/11/2007  
Project No.: 19997570.00003



# Soil Boring Log

**Boring No.: SB-91**  
**Monitoring Well No.: N/W**

URS No. SB-91

<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania			<b>Date Started:</b> 11/13/07 <b>Date Finished:</b> 11/13/07		
<b>Survey</b> N255955.10 <b>Location:</b> E2721856.90		<b>Ground Elevation:</b> 7.50 ft.	<b>Inner Casing Elevation:</b> ft.		<b>Outer Casing Elevation:</b> ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Brown fine-coarse SAND with gravel and brick fragments, medium dense, dry-moist		6				
				7		0.0		
				8				
				6		0.0		Analytical soil sample collected from 0.0-2.0 feet
				6				
				6		2.7		
	4.3			4				
		Dark gray to light gray Clayey SILT, medium dense, moist, saturated at 4 feet		3		3.1		Analytical soil sample collected from 3.0-4.0 feet
	3.5						▼	
		End of Boring at 4 feet bgs						
5								

Notes:

ppm = parts per million
bpf = blows per foot
(a) = Analytical sample collected

bgs = below ground surface
N/W = No Well Installed
▼ = water level at completion

Driller: Eichelbergers - Mike Martinez	Depth to Water: 4.00 ft bgs
Drilling Method: CME 75 HSA	Date of Measurement: 11/13/2007
Field Inspector: J. Bridge/ M. Pitchford	Project No.: 19997570.00003



# Soil Boring Log

**Boring No.: SB-92**  
**Monitoring Well No.: N/W**

URS No. SB-92

<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania			<b>Date Started:</b> 10/11/07 <b>Date Finished:</b> 10/11/07		
<b>Survey</b> N255851.40 <b>Location:</b> E2722023.50	<b>Ground Elevation:</b> 6.70 ft.	<b>Inner Casing Elevation:</b> ft.	<b>Outer Casing Elevation:</b> ft.		

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	6.2	Asphalt with sub-base: gray fine-coarse angular gravel, dry				0.0		
		Brown to red-grayish brown Sandy SILT, some clay, trace to some fine-coarse angular gravel, dry				0.0		Analytical soil sample collected from 0.0-2.0 feet
						0.0		
						0.0		
		Saturated at 4 feet					▼	Analytical soil sample collected from 3.0-4.0 feet
5	1.7	Dark gray fine-coarse angular gravel, saturated						
	0.7	Dark gray Silty CLAY grading to Clayey fine-coarse SAND, saturated						
	-1.3	End of boring at 8 feet bgs						

Notes:

ppm = parts per million
bpf = blows per foot
(a) = Analytical sample collected

bgs = below ground surface
N/W = No Well Installed
▼ = water level at completion

Driller: Eichelbergers - Mike Livingston	Depth to Water: 4.00 ft bgs
Drilling Method: Geoprobe	Date of Measurement: 10/11/2007
Field Inspector: J. Bridge/ M. Pitchford	Project No.: 19997570.00003



# Soil Boring Log

**Boring No.: SB-93**  
**Monitoring Well No.: N/W**

URS No. SB-93

<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania			<b>Date Started:</b> 10/11/07 <b>Date Finished:</b> 10/11/07		
<b>Survey</b> N255868.80 <b>Location:</b> E2721849.70		<b>Ground Elevation:</b> 6.90 ft.	<b>Inner Casing Elevation:</b> ft.		<b>Outer Casing Elevation:</b> ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
5	6.4	Asphalt with sub-base: gray fine-coarse angular gravel, dry				0.0		Analytical soil sample collected from 0.0-2.0 feet
		Brown to light brown fine-coarse Silty SAND with fine-medium angular gravel and trace clay				0.0		
	5.4	Dark gray Sandy SILT grading to Silty CLAY, trace fine sand, moist				0.0		
		Saturated at 3 feet					▼	
	3.4	Dark gray to black fine-coarse angular SAND and GRAVEL, saturated						
2.9	End of Boring at 4 feet bgs							

Notes:

ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected

bgs = below ground surface      N/W = No Well Installed      ▼ = water level at completion

Driller: Eichelbergers - Mike Livingston	Depth to Water: 3.00 ft bgs
Drilling Method: Geoprobe	Date of Measurement: 10/11/2007
Field Inspector: J. Bridge/ M. Pitchford	Project No.: 19997570.00003



**Boring No.: SB-94**  
**Monitoring Well No.: N/W**

**Date Started:** 11/15/07  
**Date Finished:** 11/15/07

**Outer Casing**  
**Elevation:**            **ft.**

Notes:

ppm = parts per million	bpf = blows per foot	(a) = Analytical sample collected
bgs = below ground surface	N/W = No Well Installed	▼ = water level at completion

Depth to Water:	4.00 ft bgs
Date of Measurement:	11/15/2007
Project No.:	19997570.00003



# Soil Boring Log

**Boring No.: SB-98**  
**Monitoring Well No.: N/W**

URS No. SB-98

<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania				<b>Date Started:</b> 10/5/07 <b>Date Finished:</b> 10/5/07			
<b>Survey</b> N255365.50 <b>Location:</b> E2721778.80		<b>Ground Elevation:</b> 11.50 ft.		<b>Inner Casing Elevation:</b> ft.		<b>Outer Casing Elevation:</b> ft.	

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Dark brown to brown fine-coarse SAND with gravel and brick fragments, medium dense, dry				0.0		Analytical soil sample collected from 0.0-2.0 feet
						0.0		
						0.0		
						0.0		
						0.0		
5	6.5	Gray SILT and fine SAND, dense, dry				0.0		
	5.0	White to yellowish white SILT and fine SAND, loose, dry				0.0		
	4.2	Brownish red fine SAND, loose, moist				0.0		
		Saturated at 8 feet					▼	Analytical soil sample collected from 7.0-8.0 feet
	2.0	Brown fine SAND, saturated						

Notes:

ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected

bgs = below ground surface      N/W = No Well Installed      ▼ = water level at completion

Driller: Eichelbergers - Mike Livingston	Depth to Water: 8.00 ft bgs
Drilling Method: Geoprobe	Date of Measurement: 10/5/2007
Field Inspector: J. Bridge/ M. Pitchford	Project No.: 19997570.00003



# Soil Boring Log

**Boring No.: SB-98**  
**Monitoring Well No.: N/W**

URS No. SB-98

<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania			<b>Date Started:</b> 10/5/07 <b>Date Finished:</b> 10/5/07		
<b>Survey</b> N255365.50 <b>Location:</b> E2721778.80		<b>Ground Elevation:</b> 11.50 ft.	<b>Inner Casing Elevation:</b> ft.		<b>Outer Casing Elevation:</b> ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Brown fine SAND, saturated						
	-0.5							
		End of Boring at 12 feet bgs						
15								

Notes:

ppm = parts per million
bpf = blows per foot
(a) = Analytical sample collected

bgs = below ground surface
N/W = No Well Installed
= water level at completion

Driller:	Eichelbergers - Mike Livingston	Depth to Water:	8.00 ft bgs
Drilling Method:	Geoprobe	Date of Measurement:	10/5/2007
Field Inspector:	J. Bridge/ M. Pitchford	Project No.:	19997570.00003



**Boring No.: SB-100**  
**Monitoring Well No.: N/W**

URS No. SB-100

<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania						<b>Date Started:</b> 10/9/07 <b>Date Finished:</b> 10/9/07							
<b>Survey Location:</b> N255411.50 E2721657.70			<b>Ground Elevation:</b> 22.40 ft.			<b>Inner Casing Elevation:</b> ft.				<b>Outer Casing Elevation:</b> ft.			
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION					LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS	
	21.4	Dark Gray to Black asphalt sub-base, fine-coarse angular GRAVEL & fine-coarse SAND, Dry								0.0		Analytical soil sample collected from 0.0-2.0 feet	
		Brown to Dk. Gray fine-medium Silty SAND, some clay & fine-medium angular gravel, Dry								0.0			
										0.0			
	19.4	Brown fine-medium Silty SAND, some clay, Dry								0.0			
										0.0			
5	17.4	Multi-colored (Brown, White, Greenish Brown, Gray) fine-coarse Silty SAND & GRAVEL, Moist								0.0			
										0.0			
										0.0			
Notes: ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected bgs = below ground surface    N/W = No Well Installed      ▼ = water level at completion													
Driller:Eichelbergers - Mike Livingston						Depth to Water: 23.00 ft bgs							
Drilling Method: Geoprobe						Date of Measurement: 10/9/2007							
Field Inspector: J. Bridge/ M. Pitchford						Project No.: 19997570.00003							



# Soil Boring Log

**Boring No.: SB-100**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/9/07  
**Date Finished:** 10/9/07

**Survey** N255411.50  
**Location:** E2721657.70

**Ground**  
**Elevation:** 22.40 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15	6.9	Multi-colored (Brown, White, Greenish Brown, Gray) fine-coarse Silty SAND & GRAVEL, Moist  Moist at 11 feet          Brown to Orangish Brown fine-medium silty SAND, trace fine-medium angular gravel, moist				0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0		Analytical soil sample collected from 14-15 feet

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichelbergers - Mike Livingston  
**Drilling Method:** Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 23.00 ft bgs  
**Date of Measurement:** 10/9/2007  
**Project No.:** 19997570.00003

URS No. SB-100



# Soil Boring Log

**Boring No.: SB-100**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/9/07  
**Date Finished:** 10/9/07

**Survey** N255411.50  
**Location:** E2721657.70

**Ground**  
**Elevation:** 22.40 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Brown to Orangish Brown fine-medium silty SAND, trace fine-medium angular gravel, moist				0.0		
						0.0		
						0.0		
	-0.6	Saturated at 23 feet					▼	
	-1.6	Greenish Gray, fine-medium Silty SAND, trace fine-medium angular gravel, Saturated				0.0		
25		End of Boring at 24 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichelbergers - Mike Livingston  
**Drilling Method:** Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 23.00 ft bgs  
**Date of Measurement:** 10/9/2007  
**Project No.:** 19997570.00003



**Boring No.: SB-121**  
**Monitoring Well No.: N/W**

URS No. SB-121

[illegible]



**Boring No.: SB-122**  
**Monitoring Well No.: N/W**

URS No. SB-122

<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania				<b>Date Started:</b> 10/18/07 <b>Date Finished:</b> 10/18/07						
<b>Survey</b> N255997.50 <b>Location:</b> E2721519.00		<b>Ground</b> <b>Elevation:</b> 6.10 ft.		<b>Inner Casing</b> <b>Elevation:</b> ft.			<b>Outer Casing</b> <b>Elevation:</b> ft.			
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION			LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
5.9		Asphalt Brown, fine-coarse SAND with gravel, loose, dry						0.0		Analytical soil sample collected at 0-2 feet
								0.0		
								0.0		
2.6		Dark grayish brown well sorted medium SAND, moist, loose, with steam rounded clasts						0.0		Analytical soil sample collected at 3.5-4.5 feet
		Saturated at 4.5 feet						0.0	▼	
-1.9										
		End of boring at 8 feet bgs								
Notes: ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected bgs = below ground surface      N/W = No Well Installed      ▼ = water level at completion										
Driller: Eichelbergers- Mike Livingston					Depth to Water: 4.50 ft bgs					
Drilling Method: Geoprobe					Date of Measurement: 10/18/2007					
Field Inspector: J. Bridge/ M. Pitchford					Project No.: 19997570.00003					



# Soil Boring Log

**Boring No.: SB-125**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/12/07  
**Date Finished:** 10/12/07

**Survey** N255905.10  
**Location:** E2721684.10

**Ground  
Elevation: 5.60 ft.**

**Inner Casing**  
**Elevation:**            **ft.**

**Outer Casing**  
**Elevation:**            **ft.**

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
5.4	5.4	Asphalt						
		Gray-light gray, fine-coarse Sandy GRAVEL, dense, dry				0.0		Analytical soil sample collected at 0-2 feet
						0.0		
3.6	3.6	Dark brown, fine-coarse SAND with traces of gravel				0.8		Analytical soil sample collected at 2.5-3.5 feet
		Saturated at 3.5 feet					▼	
1.6	1.6							
		End of boring at 4 feet bgs						
5								

Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers- Mike Livingston  
 Drilling Method: Geoprobe  
 Field Inspector: J. Bridge/ M. Pitchford

Depth to Water:	3.50 ft bgs
Date of Measurement:	10/12/2007
Project No.:	19997570.00003



[illegible]

URS No. SB-128



**Boring No.: SB-129**  
**Monitoring Well No.: N/W**

URS No. SB-129

[illegible]



**Boring No.: SB-130**  
**Monitoring Well No.: N/W**

URS No. SB-130

[illegible]



**Boring No.: SB-131**  
**Monitoring Well No.: N/W**

URS No. SB-131

[illegible]



**Boring No.: SB-133**  
**Monitoring Well No.: N/W**

URS No. SB-133

[illegible]



# Soil Boring Log

**Boring No.: SB-134**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
 Philadelphia, Pennsylvania

**Date Started:** 11/15/07  
**Date Finished:** 11/15/07

**Survey Location:** N255996.30  
 E2721855.20

**Ground Elevation:** 7.10 ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	6.9	Asphalt						
		Brown clayey fine-coarse SAND with gravel and brick fragments, dense, moist		11		0.0		Analytical soil sample collected from 0.0-2.0 feet
				16				
				7		0.0		
				5				
	4.6	Gray to dark gray Clayey fine-coarse SAND with intermittent gravel and stream rounded clasts, medium dense, dry		11		0.0		Analytical soil sample collected from 2.0-3.0 feet
	4.1	Saturated at 3 feet		5			▼	
		End of Boring at 3 feet bgs		5				
				50/				
				4				
5								

## Notes:

ppm = parts per million      bpf = blows per foot  
 bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
 ▼ = water level at completion

Driller: Eichelbergers - Mike Martinez  
 Drilling Method: CME 75 HSA  
 Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 3.00 ft bgs  
 Date of Measurement: 11/15/2007  
 Project No.: 19997570.00003

URS No. SB-134



[illegible]

R&amp;H 1 OF 2.GPJ ANITEC-25FT 9/12/08



Soil Boring Log						Boring No.: SB-136 Monitoring Well No.: N/W			
<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania					<b>Date Started:</b> 10/22/07 <b>Date Finished:</b> 10/22/07				
<b>Survey Location:</b> N255896.30 E2721727.30		<b>Ground Elevation:</b> 6.20 ft.		<b>Inner Casing Elevation:</b> ft.			<b>Outer Casing Elevation:</b> ft.		
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS	
	6.0	Asphalt						Note: Groundwater not encountered	
		Brown-dark brown, Clayey fine coarse SAND with gravel and brick fragments and intermittent stream rounded clasts, loose, dry				0.0		Analytical soil sample collected at 0-2 feet	
						0.0			
						0.0			
	2.2	CONCRETE, dry (encountered at 4 feet)				0.0			
5		End of boring at 4 feet bgs							
Notes: ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected bgs = below ground surface    N/W = No Well Installed      ▼ = water level at completion									
Driller:Eichelbergers- Mike Livingston Drilling Method: Geoprobe Field Inspector: J. Bridge/ M. Pitchford					Depth to Water: ft bgs Date of Measurement: 10/22/2007 Project No.: 19997570.00003				

R&amp;H 1 OF 2.GPJ ANITEC-25FT 9/12/08



[illegible]

URS No. SB-137



Soil Boring Log						Boring No.: SB-138 Monitoring Well No.: N/W			
<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania					<b>Date Started:</b> 10/22/07 <b>Date Finished:</b> 10/22/07				
<b>Survey Location:</b> N256124.40 E2721709.50		<b>Ground Elevation:</b> 6.70 ft.		<b>Inner Casing Elevation:</b> ft.			<b>Outer Casing Elevation:</b> ft.		
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS	
6.5		Asphalt Light brown-brown, fine-coarse SAND with gravel fragments, dry  Moist at 1.5 feet				0.0  0.0		Note: Groundwater not encountered  Analytical soil sample collected at 0-2 feet	
4.2		End of boring at 2.5 feet bgs							
5									
Notes: ppm = parts per million                  bpf = blows per foot                  (a) = Analytical sample collected bgs = below ground surface        N/W = No Well Installed              ▼ = water level at completion									
Driller:Eichelbergers- Mike Livingston Drilling Method: Geoprobe Field Inspector: J. Bridge/ M. Pitchford					Depth to Water: ft bgs Date of Measurement: 10/22/2007 Project No.: 19997570.00003				

URS No. SB-138



Soil Boring Log						Boring No.: SB-139 Monitoring Well No.: N/W						
<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania						<b>Date Started:</b> 10/22/07 <b>Date Finished:</b> 10/22/07						
<b>Survey Location:</b> N256018.60 E2721605.00			<b>Ground Elevation:</b> 6.30 ft.			<b>Inner Casing Elevation:</b> ft.				<b>Outer Casing Elevation:</b> ft.		
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION				LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS	
6.1		Asphalt Brown-dark brown, fine-coarse SAND with gravel, loose, dry							0.0		Analytical soil sample collected at 0-2 feet	
									0.0			
		Moist at 2 feet  Saturated at 2.5 feet							0.0	▼		
2.3									0.0			
5		End of boring at 4 feet bgs										
Notes: ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected bgs = below ground surface    N/W = No Well Installed      ▼ = water level at completion												
Driller:Eichelbergers- Mike Livingston Drilling Method: Geoprobe Field Inspector: J. Bridge/ M. Pitchford						Depth to Water: 2.50 ft bgs Date of Measurement: 10/22/2007 Project No.: 19997570.00003						

URS No. SB-139



**Boring No.: SB-141**  
**Monitoring Well No.: N/W**

URS No. SB-141

[illegible]



# Soil Boring Log

**Boring No.: SB-142**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 11/12/07  
**Date Finished:** 11/12/07

**Survey** N256206.20  
**Location:** E2722258.20

**Ground  
Elevation: 7.60 ft.**

**Inner Casing**  
**Elevation:**            **ft.**

**Outer Casing**  
**Elevation:**            **ft.**

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (blows) per foot	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
7.4		Asphalt	[Pattern]	8		3.8		
		Brown fine-coarse SAND with gravel and brick fragments, medium dense, moist	[Pattern]	11				Analytical soil sample collected from 0.0-2.0 feet
			[Pattern]	1		9.3		
5.4			[Pattern]	8				
		Dark brown fine-coarse SAND with gravel and brick fragments, medium dense, moist-wet	[Pattern]	4		29		
			[Pattern]	3				Analytical soil sample collected from 2.0-4.0 feet
3.7		Saturated at 4 feet	[Pattern]	8		62		
3.6		End of Boring at 4 feet bgs	[Pattern]	3			▼	
5								

Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers - Mike Martinez  
Drilling Method: CME 75 HSA  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water:	4.00 ft bgs
Date of Measurement:	11/12/2007
Project No.:	19997570.00003



# Soil Boring Log

**Boring No.: SB-144**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 11/12/07  
**Date Finished:** 11/12/07

**Survey** N256201.00  
**Location:** E2722294.10

**Ground Elevation:** 7.20 ft.

**Inner Casing Elevation:** N/A ft.

**Outer Casing Elevation:** N/A ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Brown fine to coarse SAND and GRAVEL with brick fragments, moist		Aug 3		4.1		
	5.0	CONCRETE		3		12.8		Analytical soil sample collected from 0.0-2.0 feet
	4.2	Dark brown fine to coarse SAND with gravel, brick fragments and stream rounded clasts		Aug 2		0.0		
		Saturated at 4 feet		50 / 2		0.0		Analytical soil sample collected from 3.0-4.0 feet
5	2.2	End of boring at 5 feet bgs		1				

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers - Mike Martinez  
Drilling Method: CME 75 HSA  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 4.00 ft bgs  
Date of Measurement: 11/12/2007  
Project No.: 19997570.00003



# Soil Boring Log

**Boring No.: SB-146**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/16/07  
**Date Finished:** 10/16/07

**Survey** N256190.50  
**Location:** E2722339.00

**Ground**  
**Elevation:** 7.50 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	7.3	Asphalt						
		Gray-brown, fine-coarse SAND with gravel, loose, dry				0.0		Analytical soil sample collected at 0-2 feet
						0.0		
						0.0		
						0.0		
5						0.0		
	2.0	Gray, Silty CLAY, medium plasticity, wet Saturated at 5.5 feet				0.0	▼	
						2.9		Analytical soil sample collected at 6-7 feet
						0.0		
	-0.5	End of boring at 8 feet bgs						

## Notes:

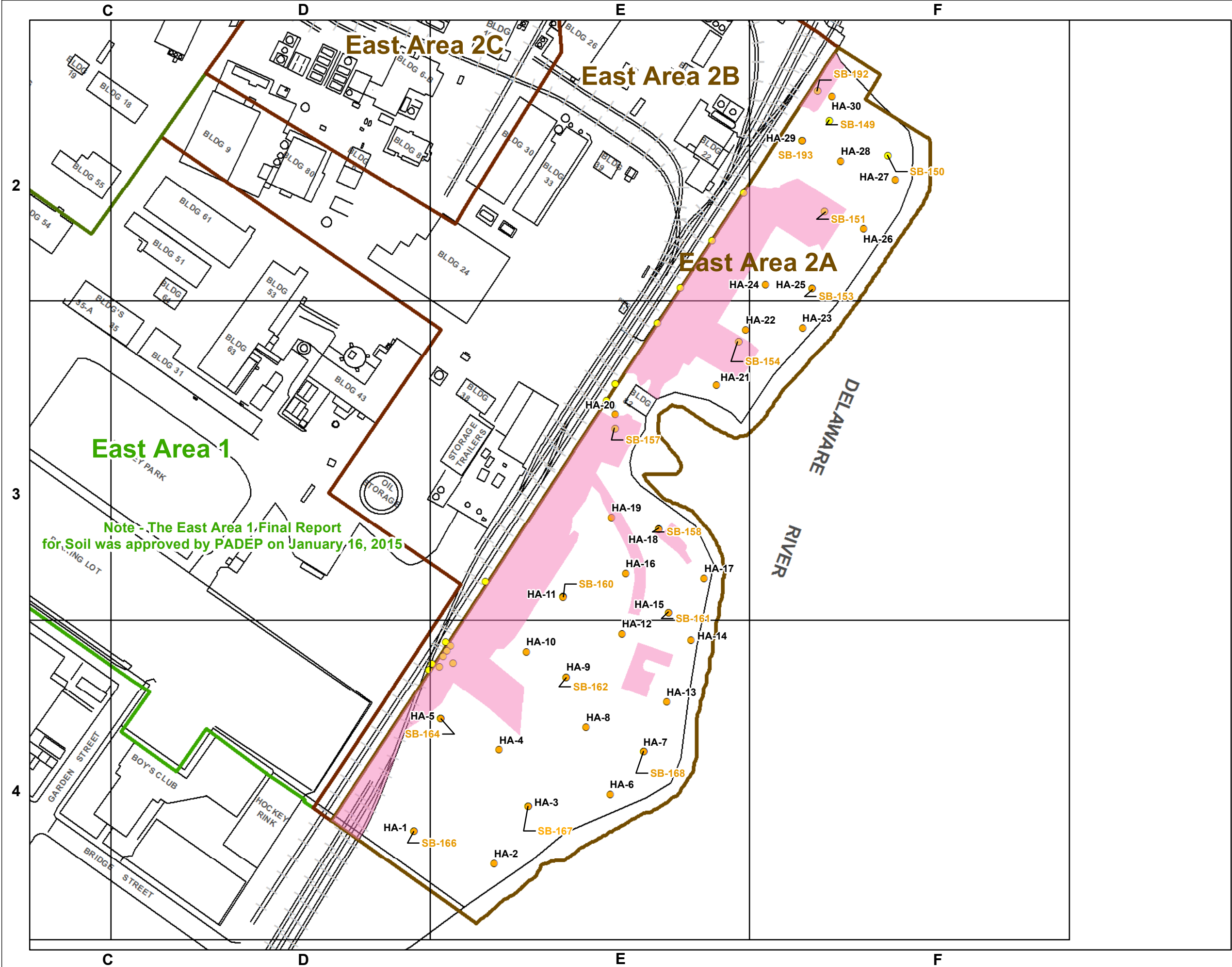
ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichelbergers- Mike Livingston  
**Drilling Method:** Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 5.50 ft bgs  
**Date of Measurement:** 10/16/2007  
**Project No.:** 19997570.00003





- Legend**
- Hand Auger Locations
  - RI Borings
  - East Area 1 - Covered Under Statewide Health Standards - Non Residential
  - East Area 2A - Covered Under Site-Specific Standards - Residential
  - East Area 2B/2C - Covered Under Site-Specific Standards - Non-Residential
  - Former West Production Area - Covered Under Site-Specific Standards - Non-Residential
  - Pavement Area



Key Map  
Not to Scale



NAD 1983 StatePlane Pennsylvania South  
FIPS 3702 Feet  
Lambert Conformal Conic  
False Easting: 1968500.000000  
False Northing: 0.000000  
Central Meridian: -77.750000  
Standard Parallel 1: 39.933333  
Standard Parallel 2: 40.966667  
Latitude Of Origin: 39.333333

0 50 100 200 300 Feet

**AECOM**

Figure A-1  
East Area 2A Hand Auger  
Locations

Rohm and Haas Chemicals LLC  
Philadelphia Plant  
Philadelphia, PA

Prepared By: CDW

Checked By: GMA

Job: 60533397

Date: 10/23/2017



# Soil Boring Log

**Boring No.: SB-149**  
**Monitoring Well No.: N/W**

URS No. SB-149

<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania			<b>Date Started:</b> 10/8/07 <b>Date Finished:</b> 10/8/07		
<b>Survey</b> N256036.00 <b>Location:</b> E2722374.80		<b>Ground Elevation:</b> 5.50 ft.	<b>Inner Casing Elevation:</b> ft.		<b>Outer Casing Elevation:</b> ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	5.3	Asphalt						
		Dark brown, Clayey medium-coarse SAND with brick and gravel fragments, medium density, moist				0.0		
						0.0		Analytical soil sample collected at 0-2 feet
						0.0		
						0.0		
5						0.0		
						0.0		
		Saturated at 6 feet				0.0	▼	Analytical soil sample collected at 5-6 feet
						0.0		
	-2.5					0.0		
		End of boring at 8 feet bgs						

Notes:

ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected

bgs = below ground surface      N/W = No Well Installed      ▼ = water level at completion

Driller: Eichelbergers- Mike Livingston	Depth to Water: 6.00 ft bgs
Drilling Method: Geoprobe	Date of Measurement: 10/8/2007
Field Inspector: J. Bridge/ M. Pitchford	Project No.: 19997570.00003



**Boring No.: SB-150**  
**Monitoring Well No.: N/W**

URS No. SB-150

<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania				<b>Date Started:</b> 10/8/07 <b>Date Finished:</b> 10/8/07			
<b>Survey Location:</b> N255982.14 E2722465.98		<b>Ground Elevation:</b> 5.16 ft.		<b>Inner Casing Elevation:</b> ft.		<b>Outer Casing Elevation:</b> ft.	
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC
	4.9	Asphalt					
		Dark brown-black, medium-coarse Clayey SAND with intermittent gravel and brick fragments, medium density, moist				0.0	Analytical soil sample collected at 0-2 feet
						0.0	
						0.0	
						0.0	Analytical soil sample collected at 3-4 feet
		Saturated at 4 feet					
5							
	-2.8						
		End of boring at 8 feet bgs					

Notes:

ppm = parts per million  
 bgs = below ground surface

bpf = blows per foot  
 N/W = No Well Installed

(a) = Analytical sample collected  
 = water level at completion

Driller: Eichelbergers- Mike Livingston	Depth to Water: 4.00 ft bgs
Drilling Method: Geoprobe	Date of Measurement: 10/8/2007
Field Inspector: J. Bridge/ M. Pitchford	Project No.: 19997570.00003



# Soil Boring Log

**Boring No.: SB-151**  
**Monitoring Well No.: N/W**

URS No. SB-151

<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania				<b>Date Started:</b> 10/8/07 <b>Date Finished:</b> 10/8/07			
<b>Survey</b> N255893.50 <b>Location:</b> E2722367.20		<b>Ground Elevation:</b> 5.70 ft.		<b>Inner Casing Elevation:</b> ft.		<b>Outer Casing Elevation:</b> ft.	

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	5.5	Asphalt				0.0		
		Dark brown, medium-coarse SAND with gravel and brick fragments, dense, dry-moist				0.0		Analytical soil sample collected at 0-2 feet
						0.0		
						0.0		
	1.7	Brown, coarse SAND, medium density, saturated						Analytical soil sample collected at 3-4 feet
		Saturated at 4 feet						
5		Light brown at 5 feet						
		Dark brown-black at 5.5 feet						
	-2.3							
		End of boring at 8 feet bgs						

Notes:

ppm = parts per million
bpf = blows per foot
(a) = Analytical sample collected

bgs = below ground surface
N/W = No Well Installed
= water level at completion

Driller: Eichelbergers- Mike Livingston	Depth to Water: 4.00 ft bgs
Drilling Method: Geoprobe	Date of Measurement: 10/8/2007
Field Inspector: J. Bridge/ M. Pitchford	Project No.: 19997570.00003



# Soil Boring Log

**Boring No.: SB-153**  
**Monitoring Well No.: N/W**

URS No. SB-153

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/8/07  
**Date Finished:** 10/8/07

**Survey** N255773.64  
**Location:** E2722347.54

**Ground**  
**Elevation:** 6.43 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Dark brown-brown, medium-coarse Sandy CLAY, dense, low plasticity, intermittent gravel and brick fragments, dry-moist				0.0		
						0.0		Analytical soil sample collected at 0-2 feet
						0.0		
						0.0		
						0.0		
5						0.0		Analytical soil sample collected at 4-5 feet
	0.9	GRAVEL Saturated at 5.5 feet				0.0	▼	
	-1.6							
		End boring at 8 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichelbergers- Mike Livingston  
**Drilling Method:** Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 5.50 ft bgs  
**Date of Measurement:** 10/8/2007  
**Project No.:** 19997570.00003



**Hand Auger Number: HA-25 (SB-153)**

Description of surface material (0-6"): coarse to fine gravel and brown medium to fine sandy silt. Some fill type debris & trace organics.

Photo #1: HA-25 Location (20' SE of TW-47S)





Photo #2: HA-25 Surface Material





# Soil Boring Log

**Boring No.: SB-154**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/8/07  
**Date Finished:** 10/8/07

**Survey** N255689.60  
**Location:** E2722233.40

**Ground**  
**Elevation:** 6.50 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	6.3	Gravel						
		Brown, coarse SAND and GRAVEL, loose, dry				0.0		
	5.0	Brown, medium-coarse Sandy CLAY with intermittent gravel and brick fragments, medium density, low plasticity, moist				0.0		Analytical soil sample collected at 0-2 feet
						0.0		
						0.0		
5						0.0		Analytical soil sample collected at 4-5 feet
		Saturated at 5.5 feet					▼	
	-1.5							
		End of boring at 8 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichelbergers- Mike Livingston  
**Drilling Method:** Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 5.50 ft bgs  
**Date of Measurement:** 10/8/2007  
**Project No.:** 19997570.00003

URS No. SB-154



**Hand Auger Number: HA-22 (SB-154)**

Description of surface material (0-6"): coarse to fine gravel, brick & concrete debris fill. Little medium to fine brown sand silt & trace organics.

Photo #1: HA-22 Location (moved to north side of asphalt pad)





Photo #2: HA-22 Surface Material





# Soil Boring Log

**Boring No.: SB-155**  
**Monitoring Well No.: N/W**

URS No. SB-155

**Project:** Rohm and Haas Philadelphia Plant  
 Philadelphia, Pennsylvania

**Date Started:** 10/8/07  
**Date Finished:** 10/8/07

**Survey** N255753.10  
**Location:** E2722082.10

**Ground**  
**Elevation:** 8.30 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
8.1		Asphalt						
		Dark brown to black medium-coarse SAND and GRAVEL with brick fragments, loose, dry				0.0		Analytical soil sample collected at 0-2 feet
						0.0		
						0.0		
						0.0		
4.3		Gray, fine-medium Sandy CLAY with intermittent brown lenses, medium density, low plasticity, moist				0.0		Analytical soil sample collected at 4-5 feet
5						0.0		
		Saturated at 5.5 feet				0.0	▼	
						0.0		
						0.0		
0.3								
		End of boring at 8 feet bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers- Mike Livingston

Depth to Water: 5.50 ft bgs

Drilling Method: Geoprobe

Date of Measurement: 10/8/2007

Field Inspector: J. Bridge/ M. Pitchford

Project No.: 19997570.00003



# Soil Boring Log

Boring No.: SB-156  
Monitoring Well No.: N/W

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 10/8/07  
Date Finished: 10/8/07

Survey N255591.50  
Location: E2721987.00

Ground Elevation: 9.00 ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
8.8		Asphalt				0.0		
		Black, coarse SAND and GRAVEL with brick fragments, loose, dry				0.0		Analytical soil sample collected at 0-2 feet
5.3		Gray, coarse Sandy CLAY, soft, wet- saturated				0.0		
		Saturated at 4 feet				0.0		Analytical soil sample collected at 3-4 feet
5						0.0		
						0.0		
						0.0		
1.0						0.0		
		End of boring 8 feet bgs						

## Notes:

ppm = parts per million  
bgs = below ground surface

bpf = blows per foot  
N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers- Mike Livingston  
Drilling Method: Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 4.00 ft bgs  
Date of Measurement: 10/8/2007  
Project No.: 19997570.00003



# Soil Boring Log

Boring No.: SB-157  
Monitoring Well No.: N/W

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 10/5/07  
Date Finished: 10/5/07

Survey N255554.40  
Location: E2722039.40

Ground Elevation: 7.70 ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Light brown-black, fine-coarse SAND with gravel fragments, dry, dense				0.0		
						0.0		Analytical soil sample collected at 0-2 feet
						0.0		
						0.0		
	3.7	Brown-light brown, Clayey fine SAND with gravel fragments, loose, moist				0.0		
5		Saturated at 5 feet				0.0	▼	Analytical soil sample collected at 4-5 feet
						0.0		
						0.0		
	-0.3					0.0		
		End of boring at 8 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers- Mike Livingston  
Drilling Method: Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 5.00 ft bgs  
Date of Measurement: 10/5/2007  
Project No.: 19997570.00003



**Hand Auger Number: HA-20 (SB-157)**

Description of surface material (0-6"): coarse to fine gravel, little brown medium to fine sand.  
Refusal at 3" asphalt under area.

Photo #1: HA-20 Location (moved north all asphalt at original location)





Photo #2: HA-20 Surface Material





# Soil Boring Log

Boring No.: SB-158  
Monitoring Well No.: N/W

URS No. SB-158

<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania				<b>Date Started:</b> 10/5/07 <b>Date Finished:</b> 10/5/07			
<b>Survey</b> N255396.50 <b>Location:</b> E2722107.10		<b>Ground Elevation:</b> 7.30 ft.		<b>Inner Casing Elevation:</b> ft.		<b>Outer Casing Elevation:</b> ft.	

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Dark brown-gray, fine-coarse SAND with gravel fragments, moist, dense				0.0		Analytical soil sample collected at 0-2 feet
						0.0		
						0.0		
						0.0		
	3.3	Brown-light brown, fine-coarse SAND with gravel fragments, moist, dense				0.0		Analytical soil sample collected at 7-8 feet
5						0.0		
						0.0		
						0.0		
	-0.7	Saturated at 8 feet				0.0	▼	
		End of boring at 8 feet bgs						

Notes:

ppm = parts per million
bpf = blows per foot
(a) = Analytical sample collected

bgs = below ground surface
N/W = No Well Installed
▼ = water level at completion

Driller: Eichelbergers- Mike Livingston	Depth to Water: 8.00 ft bgs
Drilling Method: Geoprobe	Date of Measurement: 10/5/2007
Field Inspector: J. Bridge/ M. Pitchford	Project No.: 19997570.00003



**Hand Auger Number: HA-18 (SB-158)**

Description of surface material (0-6"): coarse to fine gravel, some medium to fine sand & trace silt. Refusal at 4.5" asphalt under area.

Photo #1: HA-18 Location





Photo #2: HA-18 Surface Material





# Soil Boring Log

**Boring No.: SB-159**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
 Philadelphia, Pennsylvania

**Date Started:** 10/10/07  
**Date Finished:** 10/10/07

**Survey Location:** N255428.80  
 E2721881.20

**Ground Elevation:** 9.10 ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	8.1	Gray fine-coarse angular GRAVEL and Silty SAND				0.0		
		Red to reddish-gray Clayey SILT with fine SAND and fine-medium GRAVEL, dry				0.0		Analytical soil sample collected at 0-2 feet
						0.0		
	5.6	Gray-brown fine-coarse Silty SAND with gravel, dry				0.0		
						0.0		
5						0.0		
		Saturated at 6 feet					▼	Analytical soil sample collected at 5-6 feet
	1.1							
		End of boring at 8 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
 bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
 ▼ = water level at completion

Driller: Eichelbergers- Mike Livingston  
 Drilling Method: Geoprobe  
 Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 6.00 ft bgs  
 Date of Measurement: 10/10/2007  
 Project No.: 19997570.00003



# Soil Boring Log

Boring No.: SB-160  
Monitoring Well No.: N/W

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 10/5/07  
Date Finished: 10/5/07

Survey N255290.50  
Location: E2721958.30

Ground  
Elevation: 7.20 ft.

Inner Casing  
Elevation: ft.

Outer Casing  
Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Dark brown-black, fine-coarse SAND with gravel and brick fragments, dry, dense				0.0		Analytical soil sample collected at 0-2 feet
						0.0		
						0.0		
						0.0		
5								
		Saturated at 7 feet					▼	Analytical soil sample collected at 6-7 feet
	-0.8							
		End of boring 8 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers- Mike Livingston  
Drilling Method: Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 7.00 ft bgs  
Date of Measurement: 10/5/2007  
Project No.: 19997570.00003



# Soil Boring Log

Boring No.: SB-161  
Monitoring Well No.: N/W

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 10/5/07  
Date Finished: 10/5/07

Survey N255266.40  
Location: E2722122.80

Ground Elevation: 9.40 ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
5		Brown-light brown, fine-coarse SAND with gravel and brick fragments, dry, dense				0.0		Analytical soil sample collected at 0-2 feet
						0.0		
						0.0		
						0.0		
						0.0		
						0.0		
						0.0		
						0.0		
						0.0		
	1.4	Saturated at 8 feet				0.0		Analytical soil sample collected at 7-8 feet
		End of boring at 8 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers- Mike Livingston  
Drilling Method: Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 8.00 ft bgs  
Date of Measurement: 10/5/2007  
Project No.: 19997570.00003



**Hand Auger Number: HA-15 (SB-161)**

Description of Fill (0-6"): overgrown weedy area. Dark brown medium to fine sand and wood debris, broken down mulch. Some gravel & crushed concrete. Adjacent to asphalt roadway.

Photo #1: HA-15 Location





Photo #2: HA-15 Surface Material





# Soil Boring Log

Boring No.: SB-162  
Monitoring Well No.: N/W

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 10/5/07  
Date Finished: 10/5/07

Survey N255164.60  
Location: E2721963.10

Ground Elevation: 7.80 ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Dark brown-black, fine-coarse SAND with gravel and brick fragments, loose- medium density, dry				0.0		
						0.0		Analytical soil sample collected at 0-2 feet
						0.0		
						0.0		
						0.0		
5	2.8	Light brown-black, fine-coarse SAND with gravel and brick fragments, loose- medium density, dry				0.0		
						0.0		
						0.0		
						0.0		
	-0.2	Saturated at 8 feet				0.0		Analytical soil sample collected at 7-8 feet
		End of boring at 8 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers- Mike Livingston  
Drilling Method: Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 8.00 ft bgs  
Date of Measurement: 10/5/2007  
Project No.: 19997570.00003



# Soil Boring Log

**Boring No.: SB-163**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/5/07  
**Date Finished:** 10/5/07

**Survey** N255194.60  
**Location:** E2721741.50

**Ground**  
**Elevation:** 8.60 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Black-light brown, fine-coarse SAND with gravel and brick fragments, loose, dry				0.0		
						0.0		Analytical soil sample collected at 0-2 feet
						0.0		
						0.0		
4.9		Light brown, Silty CLAY with intermittent stream rounded clasts and mottling, medium plasticity, medium density, moist				0.0		
						0.0		
5						0.0		
2.9		Gray coarse GRAVEL Saturated at 6 feet				0.0		Analytical soil sample collected at 5-6 feet
0.6								
		End of boring at 8 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichelbergers- Mike Livingston  
**Drilling Method:** Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 6.00 ft bgs  
**Date of Measurement:** 10/5/2007  
**Project No.:** 19997570.00003



# Soil Boring Log

Boring No.: SB-164  
Monitoring Well No.: N/W

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 10/4/07  
Date Finished: 10/4/07

Survey N255099.60  
Location: E2721765.60

Ground Elevation: 8.00 ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	7.8	Gravel						
		Brown-black, fine-coarse micaceous SAND with gravel and brick fragments, dense, dry						Analytical soil sample collected at 0-2 feet
5								
	2.5							
	2.3	Wood fragments						
		Brown, fine-coarse SAND and GRAVEL with brick fragments, moist, dense						
	1.8	Black, fine-coarse SAND and GRAVEL, moist, dense						Analytical soil sample collected at 6-7 feet
		Saturated at 7.25 feet						
	0.0							
		End of boring at 8 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers- Mike Livingston  
Drilling Method: Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 7.25 ft bgs  
Date of Measurement: 10/4/2007  
Project No.: 19997570.00003



**Hand Auger Number: HA-5 (SB-164)**

Description of surface material (0-6"): coarse to fine crushed rock & gravel asphalt & brick, some 0-0.5" brown medium to fine sand & loam. Some trace organics, dry & loose.

Photo #1: HA-5 Location





Photo #2: HA-5 Surface Material





# Soil Boring Log

**Boring No.: SB-166**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
 Philadelphia, Pennsylvania

**Date Started:** 10/3/07  
**Date Finished:** 10/3/07

**Survey** N254924.12  
**Location:** E2721724.15

**Ground**  
**Elevation:** 8.09 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Brown-black, fine-coarse SAND with gravel and brick fragments, dense, dry				0.0		Analytical soil sample collected at 0-2 feet
						0.0		
						0.0		
						0.0		
						0.0		
5						0.0		
	2.1	Dark brown, fine Clayey SAND with intermittent gravel and brick fragments, wet, medium density				0.0		Analytical soil sample collected at 5-6 feet
						0.0		
	0.1	Saturated at 8 feet				0.0		
		End of boring at 8 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
 bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
 ▼ = water level at completion

**Driller:** Eichelbergers- Mike Livingston  
**Drilling Method:** Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 8.00 ft bgs  
**Date of Measurement:** 10/3/2007  
**Project No.:** 19997570.00003

URS No. SB-166



**Hand Auger Number: HA-1 (SB-166)**

Description of Surface Material (0-6"): Brown coarse to fine gravel (50%), with medium to fine sand (50%), trace organics, crushed stone & asphalt.

Photo #1: HA-1 Location





Photo #2: HA-1 Surface Material





# Soil Boring Log

**Boring No.: SB-167**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/3/07  
**Date Finished:** 10/3/07

**Survey** N254963.40  
**Location:** E2721902.70

**Ground**  
**Elevation:** 7.00 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Brown-black, fine-coarse SAND with gravel and brick fragments, dense, dry				0.0		
		Moist at 1.5 feet				0.0		Analytical soil sample collected at 0-2 feet
						0.0		
						0.0		
5						0.0		
						0.0		
						0.0		
		Saturated at 7 feet				0.0	▼	Analytical soil sample collected at 6-7 feet
	-1.0							
		End of boring at 8 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichelbergers- Mike Livingston  
**Drilling Method:** Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 7.00 ft bgs  
**Date of Measurement:** 10/3/2007  
**Project No.:** 19997570.00003



**Hand Auger Number: HA-3 (SB-167)**

Description of surface material (0-6"): brown coarse to fine gravel (2"), asphalt, some coarse to fine sand; hard, dry, trace organic roots. 1" grass/weed patch. Refusal hard at 5.5" asphalt.

Photo #1: HA-3 Location. Location 100' from fence; 110' from HA-2





Photo #2: HA-3 Surface Material





# Soil Boring Log

Boring No.: SB-168  
Monitoring Well No.: N/W

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 10/4/07  
Date Finished: 10/4/07

Survey N255048.22  
Location: E2722083.53

Ground Elevation: 7.72 ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Dark brown-black, fine-coarse SAND with gravel and brick fragments, dry				0.0		Analytical soil sample collected at 0-2 feet
						0.0		
						0.0		
						0.0		
5		Moist at 5 feet				0.0		
						0.0		
		Saturated at 7 feet				0.0	▼	Analytical soil sample collected at 6-7 feet
	-0.3					0.0		
		End of boring at 8 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers- Mike Livingston  
Drilling Method: Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 7.00 ft bgs  
Date of Measurement: 10/4/2007  
Project No.: 19997570.00003



**Hand Auger Number: HA-7 (SB-168)**

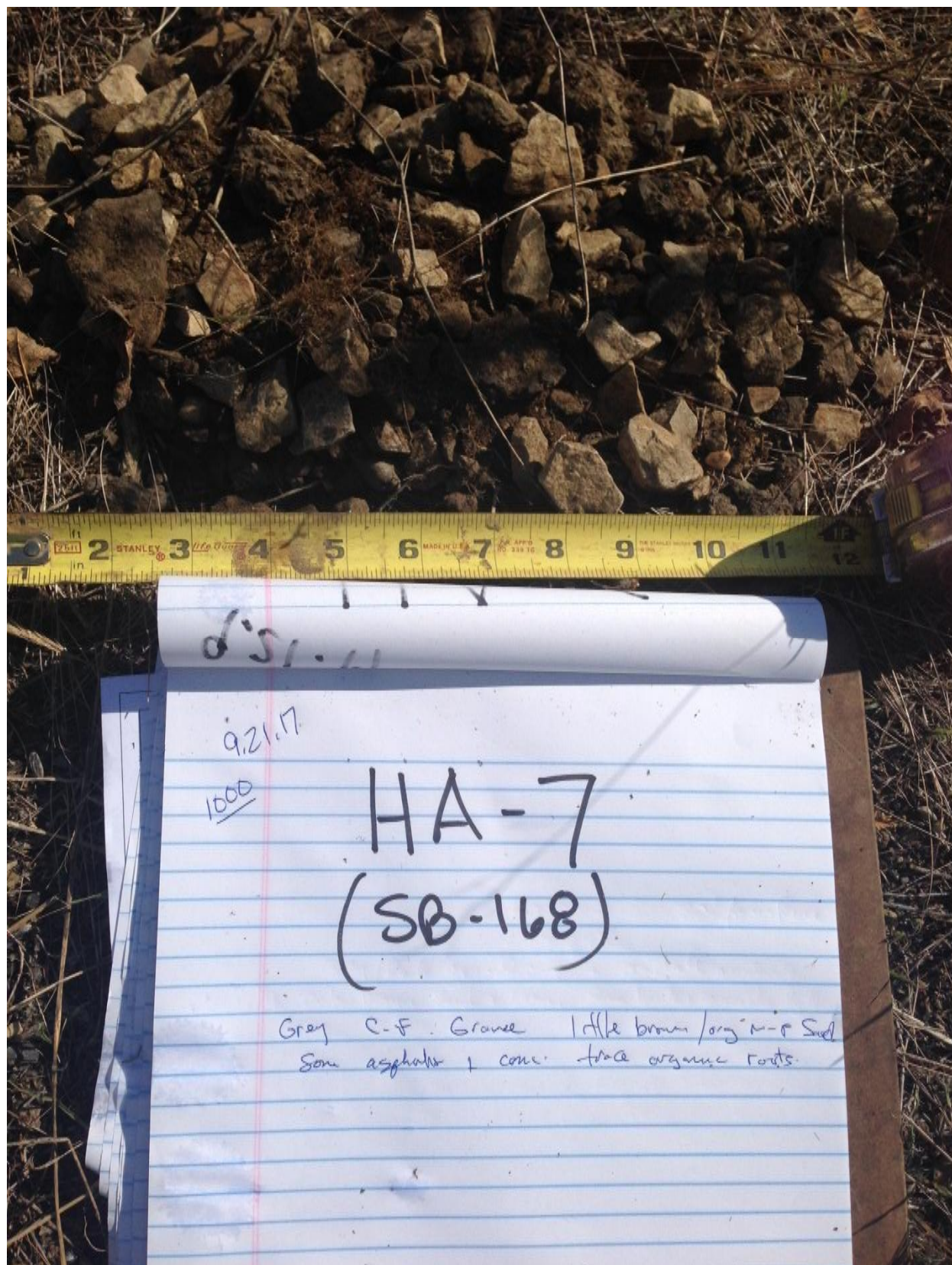
Description of surface material (0-6"): gravel; little brown/organic medium to fine soil. Some asphalt & concrete. Trace organic roots.

Photo #1: HA-7 Location





Photo #2: HA-7 Surface Material





# Soil Boring Log

Boring No.: SB-192  
Monitoring Well No.: N/W

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 11/14/07  
Date Finished: 11/14/07

Survey N256082.70  
Location: E2722356.10

Ground Elevation: 6.80 ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	6.6	Asphalt						
		Brown to dark brown Clayey fine-coarse SAND with gravel and brick fragments, medium dense, dry		14		7.3		
				17				
				12		21.1		Analytical soil sample collected from 0.0-2.0 feet
	4.8	Dark brown medium-coarse Sandy CLAY, medium dense, low plasticity, dry		17				
				3		8.5		
				12				
				6		11.8		
				6				
				3		low rec		
5				3				
				5		139		
		Saturated at 6 feet		5			▼	Analytical soil sample collected from 5.0-6.0 feet
				3				
				9				
				5				
	-1.2	End of Boring at 8 feet bgs		3				

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers - Mike Martinez  
Drilling Method: CME 75 HSA  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 6.00 ft bgs  
Date of Measurement: 11/14/2007  
Project No.: 19997570.00003



**Hand Auger Number: HA-30 (SB-192)**

Description of surface material (0-6"): gray coarse to fine gravel & cinders (little fines). Caution tape observed at 5.5" stop advancing.

Photo #1: HA-30 Location





Photo #2: HA-30 Surface Material





# Soil Boring Log

**Boring No.: SB-193**  
**Monitoring Well No.: N/W**

URS No. SB-193

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 11/14/07  
**Date Finished:** 11/14/07

**Survey** N256004.60  
**Location:** E2722332.40

**Ground**  
**Elevation:** 6.00 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Brown to dark brown Clayey SAND with gravel and brick fragments, medium dense, dry		5		0.0		
				6				
				6		0.0		Analytical soil sample collected from 0.0-2.0 feet
	3.7			5				
		Dark brown Clayey SILT with intermittent gravel fragments, medium dense, moist		5		0.0		
		Note: glass fragments at 4 feet		4				
				4		0.0		
		Saturated at 4 feet		2			▼	Analytical soil sample collected from 3.0-4.0 feet
				woh		0.0		
5				1				
				1		0.0		
	0.0			1				
		End of Boring at 6 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers - Mike Martinez  
Drilling Method: CME 75 HSA  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 4.00 ft bgs  
Date of Measurement: 11/14/2007  
Project No.: 19997570.00003



**Hand Auger Number: HA-29 (SB-193)**

Description of surface material (0-6"): coarse to fine gravel, concrete, and brick with large 4" brick pieces. Little brown medium to fine silty sand with some organics/roots and concrete debris.

Photo #1: HA-29 Location





Photo #2: HA-29 Surface Material





**Hand Auger Number: HA-2**

Description of surface material (0-6"): Dark brown coarse to fine gravel & asphalt broken rock, with little sand. Hard, dry, refusal at 4" asphalt.

Photo #1: HA-2 Location





Photo #2: HA-2 Surface Material





**Hand Auger Number: HA-4**

Description of surface material (0-6"): brown coarse to fine sand, some coarse to fine gravel & asphalt. Loam soil trace organics dry & hard.

Photo #1: HA-4 Location





Photo #2: HA-4 Surface Material





**Hand Auger Number: HA-6**

Description of surface material (0-6"): gray/black gravel; coarse to fine & asphalt crushed. Little dark brown sand & loam. Some brick & concrete fill.

Photo #1: HA-6 Location. 30' from fence.





Photo #2: HA-6 Surface Material





**Hand Auger Number: HA-8**

Description of surface material (0-6"): gray & black coarse to fine gravel; some brown medium to fine sand & asphalt, hard & dry.

Photo #1: HA-8 Location





Photo #2: HA-8 Surface Material





**Hand Auger Number: HA-9**

Description of surface material (0-6"): coarse to fine gravel & asphalt fill. Little medium to fine brown sand, some brick & concrete fill, hard & moist looser at 4"-6".

Photo #1: HA-9 Location





Photo #2: HA-9 Surface Material





**Hand Auger Number: HA-10**

Description of surface material (0-6"): brown coarse to fine silty sand with coarse to fine gravel fill inch. Brick & asphalt, loose, dry & trace organics.

Photo #1: HA-10 Location





Photo #2: HA-10 Surface Material





**Hand Auger Number: HA-11**

Description of surface material (0-6"): coarse to fine gravel, asphalt & brown sand (fill), some trace organics.

Photo #1: HA-11 Location





Photo #2: HA-11 Surface Material





**Hand Auger Number: HA-12**

Description of surface material (0-6"): dark brown medium to fine sand, some coarse to fine gravel & asphalt, trace organics and silt.

Photo #1: HA-12 Location





Photo #2: HA-12 Surface Material





**Hand Auger Number: HA-13**

Description of surface material (0-6"): coarse to fine gravel & fill, little brown medium to fine sand, trace silt & loam organics.

Photo #1: HA-13 Location





Photo #2: HA-13 Surface Material





**Hand Auger Number: HA-14**

Description of surface material (0-6"): gray coarse to fine gravel & concrete debris fill, little brown silty sand, hard & dry. Non-plastic, refusal at 5.5" concrete.

Photo #1: HA-14 Location





Photo #2: HA-14 Surface Material





**Hand Auger Number: HA-16**

Description of surface material (0-6"): brown medium to fine sand, some coarse to fine gravel, little silt trace organics.

Photo #1: HA-16 Location (across asphalt roadway from HA-15).





Photo #2: HA-16 Surface Material





**Hand Auger Number: HA-17**

Description of surface material (0-6"): coarse to fine gravel fill, some brown medium to fine silty sand & organics; hard & dense.

Photo #1: HA-17 Location





Photo #2: HA-17 Surface Material





**Hand Auger Number: HA-19**

Description of fill (0-6"): coarse to fine gravel, some brown medium to fine sand & little silt, dry/dense.

Photo #1: HA-19 Location





Photo #2: HA-19 Surface Material





**Hand Auger Number: HA-21**

Description of surface material (0-6"): coarse to fine gravel & concrete debris. Some brick little brown medium to fine sand. Trace silt & organics.

Photo #1: HA-21 Location (north 2A, south side of pad near cove)









**Hand Auger Number: HA-23**

Description of surface material (0-6"): coarse to fine gravel with some concrete, debris (fill), little silty fines, sand trace organics.

Photo #1: HA-23 Location (along fence of north 2A section)





Photo #2: HA-23 Surface Material





**Hand Auger Number: HA-24**

Description of surface material (0-6"): coarse to fine gravel, some concrete debris with medium to fine brown sand; little silt with some organic roots.

Photo #1: HA-24 Location

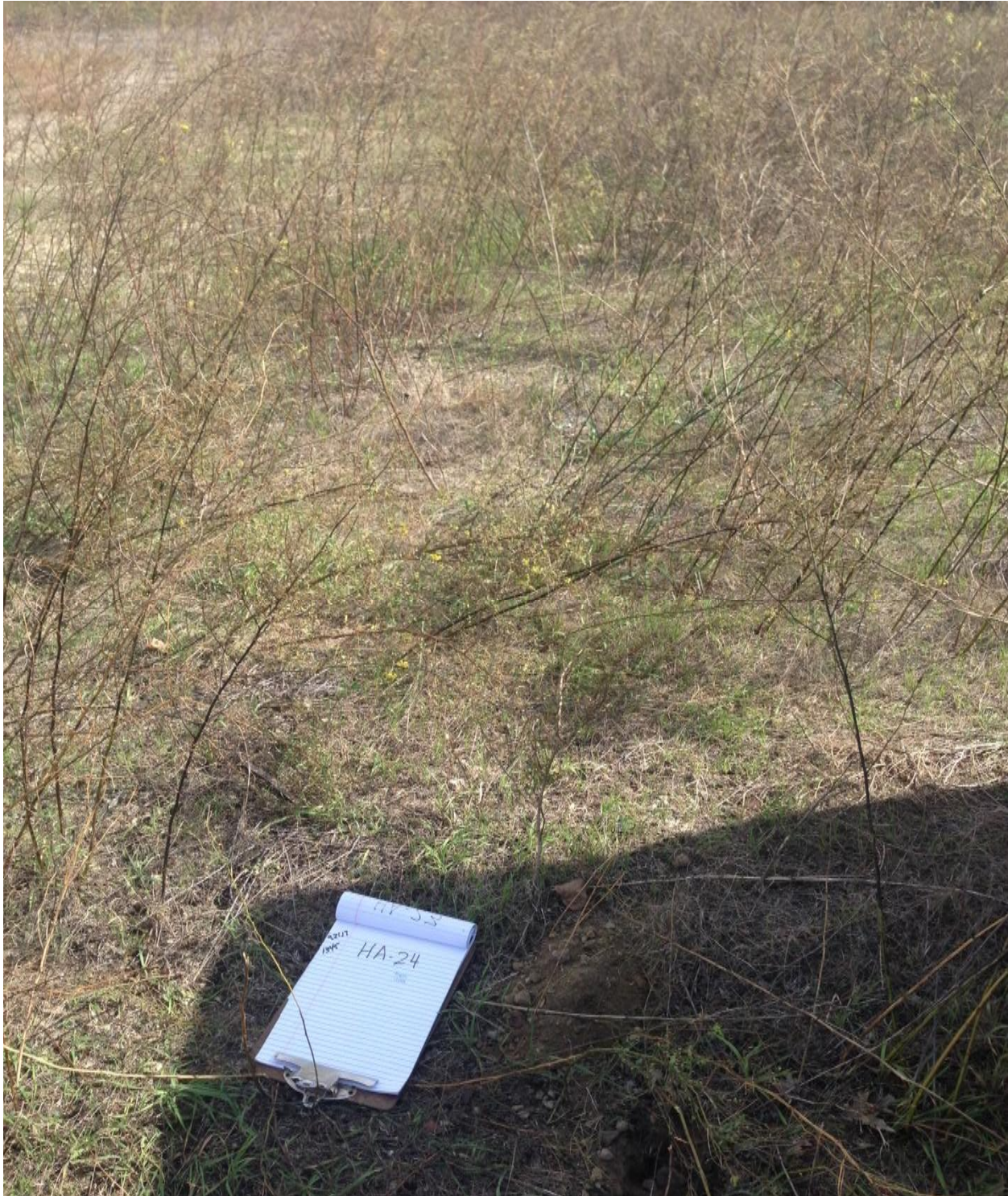




Photo #2: HA-24 Surface Material





**Hand Auger Number: HA-26**

Description of surface material (0-6"): brown medium to fine silty sand, some medium to fine gravel trace organics.

Photo #1: HA-26 Location (north 2A section along fence)





Photo #2: HA-26 Surface Material





**Hand Auger Number: HA-27**

Description of Surface Material (0-6"): Coarse to fine gravel & brick with large 4" cobble-sized broken brick, some brown medium to fine sandy silt loose trace organics, dense.

Photo #1: HA-27 Location (20' SE of TW-46S)





Photo #2: HA-27 Surface Material





**Hand Auger Number: HA-28**

Description of surface material (0-6"): brown coarse to fine silty sand and coarse to fine gravel with concrete & brick debris, trace organics.

Photo #1: HA-28 Location





Photo #2: HA-28 Surface Material





# Soil Boring Log

Boring No.: SB-194

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/10/08  
Date Finished: 12/10/08

Survey N255007.20  
Location: E2721605.10

Ground Elevation: 8.10 ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Dk. Brown f-c SAND, w/ brick & gravel frags (Moist)				0.0		
						0.0		
	6.1							
	5.9	Red BRICK frags (Moist)						
		Brown fine sandy micaceous CLAY, w/ brick frags (Wet)				0.0		
						0.0		
						0.0		
5	3.1	Brown fine sandy micaceous CLAY, w/ brick frags (Saturated)					▼	
	1.6	Black m-c SAND (Saturated)						
	-1.7							
	-1.9	End of Boring 10' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 5.00 ft bgs  
Date of Measurement: 12/10/2008  
Project No.: 19998083.00003



**Boring No.: SB-195**  
**Monitoring Well No.:**

URS No. SB-195

<b>Project:</b> The Dow Chemical Company Philadelphia, PA				<b>Date Started:</b> 12/10/08 <b>Date Finished:</b> 12/10/08			
<b>Survey Location:</b> N255020.30 E2721654.50		<b>Ground Elevation:</b> 7.50 ft.		<b>Inner Casing Elevation:</b> ft.			<b>Outer Casing Elevation:</b> ft.
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC
	7.3	Asphalt					
		Gray f-c ang. GRAVEL (Dry)				0.0	
	6.7	Whitish Tan coarse SAND (Moist)					
	6.2	Dk. Brown clayey SAND, w/ ang. gravel & brick frags (Dry)				0.0	
	5.0						
	4.8	Dk. Brown clayey SAND, w/ brick frags (Wet) Brown m-c SAND w/ small rounded gravel (Moist)				0.0	
						0.0	
	2.9	Brown m-c SAND w/ small rounded gravel (Saturated)				0.0	
5							▼
	-1.5	Dk. Gray m-c SAND, w/ ang. gravel (Saturated)					
	-2.3						
	-2.5	End of Boring 10' bgs					
Notes: ppm = parts per million                  bpf = blows per foot                  (a) = Analytical sample collected bgs = below ground surface            N/W = No Well Installed                 ▼ = water level at completion							
Driller:		Eichelbergers		Depth to Water:		5.00 ft bgs	
Drilling Method:		Geoprobe 6620DT		Date of Measurement:		12/10/2008	
Field Inspector:		MSP / JTB		Project No.:		19998083.00003	



**Boring No.: SB-196**  
**Monitoring Well No.:**

URS No. SB-196

Soil Boring Log						Boring No.: SB-196 Monitoring Well No.:					
<b>Project:</b> The Dow Chemical Company Philadelphia, PA					<b>Date Started:</b> 12/10/08 <b>Date Finished:</b> 12/10/08						
<b>Survey Location:</b> N255037.60 E2721630.40			<b>Ground Elevation:</b> 7.80 ft.		<b>Inner Casing Elevation:</b> ft.				<b>Outer Casing Elevation:</b> ft.		
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION				LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Dk. Brown f-c SAND, w/ gravel & brick frags (Moist)									
	-2.0	End of Boring 10' bgs									
Notes: ppm = parts per million                  bpf = blows per foot                  (a) = Analytical sample collected bgs = below ground surface          N/W = No Well Installed              ▼ = water level at completion											
Driller: Eichelbergers						Depth to Water: 5.00 ft bgs					
Drilling Method: Geoprobe 6620DT						Date of Measurement: 12/10/2008					
Field Inspector: MSP / JTB						Project No.: 19998083.00003					



**Boring No.: SB-197**  
**Monitoring Well No.:**

URS No. SB-197

<b>Project:</b> The Dow Chemical Company Philadelphia, PA						<b>Date Started:</b> 12/10/09 <b>Date Finished:</b> 12/10/09	
<b>Survey Location:</b> N254984.30 E2721626.90		<b>Ground Elevation:</b> 7.30 ft.		<b>Inner Casing Elevation:</b> ft.		<b>Outer Casing Elevation:</b> ft.	
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	P/D Soil Screen (ppm)	WELL SCHEMATIC
	7.0	Asphalt					
		Gray f-c GRAVEL (Dry)				0.0	
	6.4						
	6.1	Brown med. SAND (Moist)					
		Dk. Brown med. SAND, w/ rounded gravel (Wet)				0.0	
						0.0	
	4.3						
		Brown to Lt. Brown med. SAND w/ intermittent rounded gravel (Moist)				0.0	
						0.0	
	2.6						
5		Brown to Lt. Brown med. SAND w/ intermittent rounded gravel (Saturated)				0.0	▼
	-2.2						
	-2.5	Dk. Red & Gray coarse SAND, w/ ang. gravel (Saturated)					
	-2.7	End of Boring 10' bgs					
Notes: ppm = parts per million                  bpf = blows per foot                  (a) = Analytical sample collected bgs = below ground surface              N/W = No Well Installed                  ▼ = water level at completion							
Driller:		Eichelbergers		Depth to Water:		5.00 ft bgs	
Drilling Method:		Geoprobe 6620DT		Date of Measurement:		12/10/2008	
Field Inspector:		MSP / JTB		Project No.:		19998083.00003	



# Soil Boring Log

Boring No.: SB-198

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/10/09  
Date Finished: 12/10/09

Survey N254957.50  
Location: E2721670.60

Ground Elevation: 7.30 ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	6.7	Black m-c SAND, w/ ang. gravel				0.0		
		Dk. Brown silty CLAY (Wet)				0.0		
	5.3	Brown m-c SAND (Moist)				0.0		
						0.0		
	3.3	Brown m-c SAND w/ fine ang. gravel (Saturated)				0.0		
	2.5					0.0		
5	2.3	Refusal at 4.8' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 4.00 ft bgs  
Date of Measurement: 12/10/2009  
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-199

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/10/08  
Date Finished: 12/10/08

Survey N254998.60  
Location: E2721685.50

Ground Elevation: 7.50 ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	7.2	Black m-c SAND, w/ ang. gravel (Moist)						
		White to whitish pink SILT to coarse SAND, w/ rounded gravel (Moist)				0.0		
	6.0							
		Dk. Brown m-c SAND w/ ang. gravel (Moist)				0.0		
						0.0		
	4.5							
	4.3	Brown m-c SAND w/ ang. gravel (Moist)						
		Brown clayey m-c SAND, w/ ang. gravel (Moist)				0.0		
						0.0		
5	2.5	Brown clayey m-c SAND, w/ ang. gravel (Saturated)					▼	
	1.5							
	1.3	Refusal at 6' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 5.00 ft bgs  
Date of Measurement: 12/10/2008  
Project No.: 19998083.00003



# Soil Boring Log

**Boring No.: SB-95**  
**Monitoring Well No.: N/W**

URS No. SB-95

<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania			<b>Date Started:</b> 10/10/07 <b>Date Finished:</b> 10/10/07		
<b>Survey</b> N255742.40 <b>Location:</b> E2721933.90	<b>Ground Elevation:</b> 6.40 ft.	<b>Inner Casing Elevation:</b> ft.	<b>Outer Casing Elevation:</b> ft.		

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	5.9	Asphalt						
	3.7	Light brown to brown fine-coarse SAND, moist		3		0.0		Analytical soil sample collected from 0.0-2.0 feet
		CONCRETE		Ref				
				Aug		0.0		
	4.4	Dark brown to brown medium SAND, very loose, moist		1		0.0		Analytical soil sample collected from 3.0-4.0 feet
				2		0.0		
				1				
				2				
				1		0.0		
	2.4	Brown fine-coarse SAND with gravel, very loose, saturated at 4 feet		1			▼	
5				1				
				1				
				1				
	0.4							
		End of Boring at 6 feet bgs						

Notes:

ppm = parts per million
bpf = blows per foot
(a) = Analytical sample collected

bgs = below ground surface
N/W = No Well Installed
▼ = water level at completion

Driller: Eichelbergers - Mike Martinez	Depth to Water: 4.00 ft bgs
Drilling Method: CME 75 HSA	Date of Measurement: 10/10/2007
Field Inspector: J. Bridge/ M. Pitchford	Project No.: 19997570.00003



# Soil Boring Log

**Boring No.: SB-96**  
**Monitoring Well No.: N/W**

URS No. SB-96

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/11/07  
**Date Finished:** 10/11/07

**Survey** N255641.10  
**Location:** E2721837.00

**Ground**  
**Elevation:** 9.40 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	8.4	Asphalt/sub-base: gray to light gray fine-coarse angular GRAVEL, dry				0.0		
		Gray fine to coarse Silty SAND and fine-medium angular GRAVEL, dry				0.0		Analytical soil sample collected from 0.0-2.0 feet
						0.0		
	6.4	Light brown and orangish yellow brown fine-medium Silty SAND, trace medium round gravel, dry				0.0		
						0.0		
5	4.4	Gray fine-coarse Silty SAND, trace clay, trace fine-coarse round gravel, moist				0.0		
	3.4	Brown fine to coarse Silty SAND, trace clay, trace fine to coarse round gravel, moist				0.0		
						0.0		
	1.4	Gray to light grayish brown Sandy CLAY, trace silt, saturated at 8 feet				0.0	▼	Analytical soil sample collected from 7.0-8.0 feet

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichelbergers - Mike Livingston  
**Drilling Method:** Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 8.00 ft bgs  
**Date of Measurement:** 10/11/2007  
**Project No.:** 19997570.00003



[illegible]

URS No. SB-96



# Soil Boring Log

**Boring No.: SB-97**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/10/07  
**Date Finished:** 10/10/07

**Survey** N255486.30  
**Location:** E2721847.50

**Ground**  
**Elevation:** 16.20 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	15.7	Fine-Coarse GRAVEL, dry				0.0		
		Brown to light brown fine-coarse Silty SAND, fine-coarse angular gravel, dry				0.0		
	14.7	Light brown to light gray to brown fine-medium Silty SAND, some clay 3'-4', trace fine-medium round gravel, dry				0.0		
		Moist at 3 feet				0.0		
						0.0		
5	11.2	Light reddish mauve Sandy SILT, trace clay, trace fine-medium angular gravel, grading to fine-medium Silty SAND, trace clay, moist				0.0		
						0.0		
						0.0		
	8.2	Light brown to mauve to brown fine-medium Silty SAND, trace clay, Moist				0.0		
						0.0		

## Notes:

ppm = parts per million  
bgs = below ground surface

bpf = blows per foot  
N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichelbergers - Mike Livingston  
**Drilling Method:** Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 14.00 ft bgs  
**Date of Measurement:** 10/10/2007  
**Project No.:** 19997570.00003

URS No. SB-97



# Soil Boring Log

**Boring No.: SB-97**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/10/07  
**Date Finished:** 10/10/07

**Survey** N255486.30  
**Location:** E2721847.50

**Ground**  
**Elevation:** 16.20 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15	0.2	Light brown to mauve to brown fine-medium Silty SAND, trace clay, Moist  Saturated at 14 feet				0.0  0.0  0.0  0.0	▼	Analytical soil sample collected from 13.0-14.0 feet
		End of Boring at 16 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichelbergers - Mike Livingston  
**Drilling Method:** Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 14.00 ft bgs  
**Date of Measurement:** 10/10/2007  
**Project No.:** 19997570.00003



# Soil Boring Log

**Boring No.: SB-99**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/10/07  
**Date Finished:** 10/10/07

**Survey** N255498.56  
**Location:** E2721676.35

**Ground**  
**Elevation:** 17.57 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	16.6	Asphalt/sub-base: gray to black fine-coarse angular GRAVEL and grayish brown fine-coarse SAND, dry				0.0		Note: Groundwater not encountered
		Brown clayey fine to medium SAND, trace fine-medium angular and round gravel, moist				0.0		Analytical soil sample collected from 0.0-2.0 feet
	13.6					0.0		
5		End of Boring at 4 feet bgs				0.0		
		Note: Macrocore sampler stuck in bore hole 4'-8', unable to retrieve due to broken threads						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichelbergers - Mike Livingston  
**Drilling Method:** Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** ft bgs  
**Date of Measurement:** 10/10/2007  
**Project No.:** 19997570.00003



# Soil Boring Log

**Boring No.: SB-99A**  
**Monitoring Well No.: N/W**

URS No. SB-99A

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 12/5/07  
**Date Finished:** 12/5/07

**Survey** N255507.80  
**Location:** E2721753.20

**Ground**  
**Elevation:** 22.10 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	21.8	Asphalt						
		Brown fine-coarse Silty SAND, some fine-coarse angular gravel, trace brick fragments, medium dense, dry		14		0.0		
				7				
	20.6							
		Brown fine-coarse Clayey SAND, some fine-coarse angular gravel, trace brick fragments, medium dense, dry		5		0.0		
	20.1							
		Brown fine-medium Clayey SAND, very loose, moist		2				
				1		0.0		
				1				
				1		0.0		
	18.1							
		Brownish red to brown fine-coarse Silty SAND and fine-coarse angular GRAVEL, very dense, dry		2				
				4		0.0		
5				11				
				11		0.0		
	16.1							
		Multi-colored (brown, reddish brown, greenish brown, white) fine-coarse Silty SAND and fine-coarse angular GRAVEL, very dense, dry		24				
				30		0.0		
				25				
				42		0.0		
				36				
				30		0.0		
				25				
				26		0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers - Mike Martinez

Depth to Water: 19.00 ft bgs

Drilling Method: CME 75 HSA

Date of Measurement: 12/5/2007

Field Inspector: J. Bridge/ M. Pitchford

Project No.: 19997570.00003



# Soil Boring Log

**Boring No.: SB-99A**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 12/5/07  
**Date Finished:** 12/5/07

**Survey** N255507.80  
**Location:** E2721753.20

**Ground**  
**Elevation:** 22.10 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	11.1	Multi-colored (brown, reddish brown, greenish brown, white) fine-coarse Silty SAND and fine-coarse angular GRAVEL, very dense, dry		28				
				7		0.0		
		Brown fine-coarse Silty SAND, trace fine-medium round gravel, very dense, dry		12				
				16		0.0		
		Moist at 12 feet		17				
				15		0.0		
				17				
				18		0.0		
		Trace fine-medium round gravel		22				
				14		0.0		
15				9				Analytical soil sample collected from 14.0-15.0 feet
				7		0.0		
		No gravel		5				
				4		0.0		
				3				
				3		0.0		
				3				
				2		0.0		
		Saturated at 19 feet		4			▼	
				4		0.0		
2.1		End of Boring at 20 feet bgs		5				

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers - Mike Martinez  
Drilling Method: CME 75 HSA  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 19.00 ft bgs  
Date of Measurement: 12/5/2007  
Project No.: 19997570.00003



**Boring No.: SB-101**  
**Monitoring Well No.: N/W**

URS No. SB-101

<b>Project:</b> Rohm and Haas Philadelphia Plant Philadelphia, Pennsylvania						<b>Date Started:</b> 10/9/07 <b>Date Finished:</b> 10/9/07						
<b>Survey Location:</b> N255461.90 E2721723.50			<b>Ground Elevation:</b> 22.20 ft.			<b>Inner Casing Elevation:</b> ft.				<b>Outer Casing Elevation:</b> ft.		
<div>DEPTH, ft.</div>	<div>ELEVATION (FT. ABOVE MSL)</div>	STRATIGRAPHIC DESCRIPTION					LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	21.7	Asphalt										Note: Groundwater not encountered
	21.2	Sub-base, Gray to Black fine-coarse GRAVEL angular & fine-coarse SAND, Dry								0.0		Analytical soil sample collected from 0.0-2.0 feet
		Gray to Brown sandy CLAY grading to Brown fine-coarse clayey SAND, trace mottling, Dry								0.0		
										0.0		
										0.0		
5	17.2	Multi-colored (brown, gray, reddish brown, greenish brown) fine-coarse silty SAND & fine-coarse angular GRAVEL, Dry								0.0		
										0.0		
										0.0		
										0.0		
										0.0		
										0.0		
										0.0		
										0.0		
										0.0		
										0.0		
										0.0		
Notes: ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected bgs = below ground surface    N/W = No Well Installed      ▼ = water level at completion												
Driller:Eichelbergers - Mike Livingston						Depth to Water: ft bgs						
Drilling Method: Geoprobe						Date of Measurement: 10/9/2007						
Field Inspector: J. Bridge/ M. Pitchford						Project No.: 19997570.00003						



# Soil Boring Log

Boring No.: SB-101  
Monitoring Well No.: N/W

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 10/9/07  
Date Finished: 10/9/07

Survey N255461.90  
Location: E2721723.50

Ground  
Elevation: 22.20 ft.

Inner Casing  
Elevation: ft.

Outer Casing  
Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Multi-colored (brown, gray, reddish brown, greenish brown) fine-coarse silty SAND & fine-coarse angular GRAVEL, Dry				0.0		
						0.0		
						0.0		
						0.0		
	8.2	Brown to Orangish Brown fine-medium silty SAND, trace fine angular gravel, Dry				0.0		Analytical soil sample collected from 14.0-15.0 feet
15						0.0		
	6.2							Note: Trouble removing tooling from bore hole, driller concerned about tools becoming stuck.
		End of Boring at 16 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers - Mike Livingston  
Drilling Method: Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: ft bgs  
Date of Measurement: 10/9/2007  
Project No.: 19997570.00003

URS No. SB-101



# Soil Boring Log

Boring No.: SB-102  
Monitoring Well No.: N/W

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 10/10/07  
Date Finished: 10/10/07

Survey N255542.80  
Location: E2721659.70

Ground  
Elevation: 21.50 ft.

Inner Casing  
Elevation: ft.

Outer Casing  
Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	21.0	Asphalt						
	20.5	Sub-base, gray to black fine-coarse angular GRAVEL and fine-coarse SAND, dry				0.0		
		Black to brown fine-coarse Silty SAND, trace fine-medium rounded gravel, trace clay, dry				0.0		Analytical soil sample collected from 0.0-2.0 feet
						0.0		
						0.0		
						0.0		
5	16.5	Multi-colored (brown, gray, reddish brown, greenish brown) fine-coarse Silty SAND and fine-coarse angular GRAVEL, dry				0.0		
						0.0		
						0.0		
						0.0		
		Trace clay				0.0		
						0.0		
	11.5					0.0		

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers - Mike Livingston  
Drilling Method: Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 19.00 ft bgs  
Date of Measurement: 10/10/2007  
Project No.: 19997570.00003



# Soil Boring Log

**Boring No.: SB-102**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/10/07  
**Date Finished:** 10/10/07

**Survey** N255542.80  
**Location:** E2721659.70

**Ground**  
**Elevation:** 21.50 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Brown fine-medium Silty SAND, some fine-coarse angular and rounded gravel, dry				0.0		
						0.0		
	9.5	Brown fine-medium Silty SAND, some fine-coarse angular gravel, dry				0.0		
						0.0		
15						0.0		Analytical soil sample collected from 14.0-15.0 feet
						0.0		
						0.0		
						0.0		
						0.0		
						0.0		
						0.0		
						0.0		
		Saturated at 19 feet					▼	
1.5		End of Boring at 20 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichelbergers - Mike Livingston  
**Drilling Method:** Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 19.00 ft bgs  
**Date of Measurement:** 10/10/2007  
**Project No.:** 19997570.00003



# Soil Boring Log

**Boring No.: SB-103**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/10/07  
**Date Finished:** 10/10/07

**Survey** N255616.00  
**Location:** E2721712.30

**Ground**  
**Elevation:** 16.80 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	16.3	Asphalt						
	15.8	Sub-base, gray fine-coarse angular GRAVEL and fine-coarse SAND, dry				0.0		
		Brown fine-coarse Silty SAND, trace fine-medium round gravel, dry				0.0		Analytical soil sample collected from 0.0-2.0 feet
						0.0		
						0.0		
5	11.8	Brown fine-medium SAND with gravel fragments and stream rounded clasts, medium dense, moist				0.0		
						0.0		
						0.0		
						0.0		
	8.3	Reddish brown poorly graded medium SAND, medium dense, moist				0.0		
						0.0		

## Notes:

ppm = parts per million  
bgs = below ground surface

bpf = blows per foot  
N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichelbergers - Mike Livingston  
**Drilling Method:** Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 15.00 ft bgs  
**Date of Measurement:** 10/10/2007  
**Project No.:** 19997570.00003



# Soil Boring Log

**Boring No.: SB-103**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/10/07  
**Date Finished:** 10/10/07

**Survey** N255616.00  
**Location:** E2721712.30

**Ground**  
**Elevation:** 16.80 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Reddish brown poorly graded medium SAND, medium dense, moist				0.0		
						0.0		
						0.0		
	4.1					0.0		
	3.8	Dark brown fine-coarse SAND, medium dense, with intermittent gravel and quartz fragments and stream rounded clasts, moist				0.0		
		Orangish brown fine-coarse SAND, medium dense, moist				0.0		
15		Saturated at 15 feet				0.0	▼	Analytical soil sample collected from 14.0-15.0 feet
	0.8							
		End of Boring at 16 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichelbergers - Mike Livingston  
**Drilling Method:** Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 15.00 ft bgs  
**Date of Measurement:** 10/10/2007  
**Project No.:** 19997570.00003



# Soil Boring Log

**Boring No.: SB-104**  
**Monitoring Well No.: N/W**

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/12/07  
**Date Finished:** 10/12/07

**Survey** N255768.70  
**Location:** E2721685.40

**Ground**  
**Elevation:** 6.30 ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	5.8	Asphalt						
		Brown fine-coarse SAND with GRAVEL, dry				0.0		Analytical soil sample collected from 0.0-2.0 feet
		Wet at 2 feet				0.0		
		Saturated at 3.5 feet				0.0		Analytical soil sample collected from 2.5-3.5 feet
	2.3	End of Boring at 4 feet bgs						
5								

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichelbergers - Mike Livingston  
**Drilling Method:** Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 3.50 ft bgs  
**Date of Measurement:** 10/12/2007  
**Project No.:** 19997570.00003



# Soil Boring Log

Boring No.: SB-190

URS No. SB-190

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/10/07  
**Date Finished:** 10/10/07

**Survey Location:** N256331.10  
E2720644.00

**Ground Elevation:** 8.00 ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	NOTES
	7.8	Concrete						
		Black-gray, fine to coarse SAND and angular GRAVEL, dry						
	7.0	Gray, fine-coarse SAND and GRAVEL, dry				30.1		
	6.0	Black, fine-coarse clayey SAND and fine- coarse angular GRAVEL				581		
						92.9		
	4.0	Black, fine-medium angular GRAVEL, wet Product encountered at 4 feet Saturated at 4 feet				83.6	▼	
5								
	0.0							
		End of boring at 8 feet bgs						

**Notes:**

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers- Mike Livingston

Depth to Water: 4.00 ft bgs

Drilling Method: Geoprobe

Date of Measurement: 10/10/2007

Field Inspector: J. Bridge/ M. Pitchford

Project No.: 19997570.00003



**Boring No.: SB-191**

URS No. SB-191

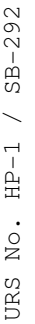
**URS**



**Boring No.: HP-1 / SB-292**  
**Monitoring Well No.: TW-54S**

**Date Started:** 2/2/09  
**Date Finished:** 2/2/09

**Outer Casing**  
**Elevation:**            **ft.**



(a) = Analytical sample collected  
▼ = water level at completion

Depth to Water: 5.00 ft bgs

Date of Measurement:

Project No.: 19998083.00003



# Soil Boring Log

Boring No.: HP-1 / SB-292  
Monitoring Well No.: TW-54S

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/2/09  
Date Finished: 2/2/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15		Gray micaceous silty CLAY, med. density, med. plasticity, (Saturated)						
		End of Boring 15' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003

URS No. HP-1 / SB-292



**Boring No.: HP-2 / SB-282**  
**Monitoring Well No.:**

**Date Started:** 12/23/08  
**Date Finished:** 12/23/08

**Outer Casing**  
**Elevation:**            **ft.**

URS No. HP-2 / SB-282

$\nabla$  = water level at completion

Depth to Water: 10.00 ft bgs  
 Date of Measurement:  
 Project No.: 41569313.00002



**Boring No.: HP-2 / SB-282**  
**Monitoring Well No.:**

**Date Started:** 12/23/08  
**Date Finished:** 12/23/08

**Outer Casing**  
**Elevation:**                **ft.**

URS No. HP-2 / SB-282

**▽** = water level at completion

Depth to Water:	10.00 ft bgs
Date of Measurement:	
Project No.:	41569313.00002



# Soil Boring Log

Boring No.: HP-3  
Monitoring Well No.:

URS No. HP-3

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/23/08  
Date Finished: 12/23/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt				0.0		
		Dk. Brown f-c SAND, w/ ang. gravel & brick frags (Dry)				0.0		
						0.0		
						0.0		
						0.0		
5						0.0		
		Dk. Brown f-c SAND, w/ ang. gravel & brick frags (Moist)				0.0		
		Grayish Green dense silty CLAY (Moist)				0.0		
		Black f-c SAND & fine ang. GRAVEL (Wet)				0.0		
		Black f-c SAND & fine ang. GRAVEL (Saturated)				0.0		
						0.0		
		Gray med. stiff micaceous silty CLAY (Saturated)				0.0		
		End of Boring 10' bgs						Water Sample Collected 10' bgs

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers

Depth to Water: 7.50 ft bgs

Drilling Method:

Date of Measurement:

Field Inspector: JTB / MC

Project No.: 41569313.00002

URS

Sheet 1 of 1



# Soil Boring Log

**Boring No.: HP-4**  
**Monitoring Well No.:**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 1/5/09  
**Date Finished:** 1/5/09

**Survey** N  
**Location:** E

**Ground**  
**Elevation:** ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt				0.0		
		Brown med. den. m-c SAND & med. GRAVEL (Dry)				0.0		
						0.0		
		Gray stiff, fine sandy CLAY (Wet)				0.0		
						0.0		
		Gray stiff, fine sandy CLAY (Wet)				0.0		
						0.0		
5						0.0		
						0.0		
						0.0		
						0.0		
						0.0		
		Gray stiff, fine sandy CLAY (Saturated)				0.0	▼	Water Sample Collected at 8' bgs
		Grayish Brown soft, micaceous silty CLAY (Moist)				0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Eichelbergers  
**Drilling Method:**  
**Field Inspector:** JTB / MC

**Depth to Water:** 8.00 ft bgs  
**Date of Measurement:**  
**Project No.:** 41569313.00002



<b>Soil Boring Log</b>				<b>Boring No.: HP-4</b> <b>Monitoring Well No.:</b>							
<b>Project:</b> The Dow Chemical Company Philadelphia, PA				<b>Date Started:</b> 1/5/09 <b>Date Finished:</b> 1/5/09							
<b>Survey</b> N <b>Location:</b> E		<b>Ground</b> <b>Elevation:</b> ft.		<b>Inner Casing</b> <b>Elevation:</b> ft.		<b>Outer Casing</b> <b>Elevation:</b> ft.					
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION				LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15		End of Boring 10' bgs									
<b>Notes:</b> ppm = parts per million                      bpf = blows per foot                      (a) = Analytical sample collected bgs = below ground surface                N/W = No Well Installed                      ▼ = water level at completion											
Driller:                    Eichelbergers				Depth to Water:            8.00 ft bgs							
Drilling Method:				Date of Measurement:							
Field Inspector:            JTB / MC				Project No.:                41569313.00002							

URS No. HP-4



# Soil Boring Log

**Boring No.: HP-5**  
**Monitoring Well No.:**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 12/23/08  
**Date Finished:** 12/23/08

**Survey Location:** N  
E

**Ground Elevation:** ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown f-c SAND & fine ang. GRAVEL (Dry)				0.0		
						0.0		
		Gray m-c ang. Lmst gravel (Dry)						
		Dk. Brown f-c SAND, w/ ang. gravel (Moist)				0.0		
		Dk. Brown f-c SAND, w/ ang. gravel (Saturated)						
						0.0		
		Brown soft micaceous CLAY (Moist)				0.0		
						0.0		
5						0.0		
						0.0		
		Brown f-c SAND, w/ ang. gravel (Moist)						
		Brown f-c SAND, w/ ang. gravel (Saturated)				0.0	▼	
						0.0		
						0.0		
		Black f-c SAND, w/ ang. gravel (Saturated)						
						0.0		
						0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Eichelbergers  
**Drilling Method:**  
**Field Inspector:** MSP / JTB

**Depth to Water:** 7.00 ft bgs  
**Date of Measurement:**  
**Project No.:** 41569313.00002



<b>Soil Boring Log</b>				<b>Boring No.: HP-5</b> <b>Monitoring Well No.:</b>						
<b>Project:</b> The Dow Chemical Company Philadelphia, PA				<b>Date Started:</b> 12/23/08 <b>Date Finished:</b> 12/23/08						
<b>Survey</b> N <b>Location:</b> E		<b>Ground</b> <b>Elevation:</b> ft.		<b>Inner Casing</b> <b>Elevation:</b> ft.		<b>Outer Casing</b> <b>Elevation:</b> ft.				
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION			LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15		End of Boring 11' bgs						0.0		Water Sample Collected at 11' bgs
<b>Notes:</b> <div style="display: flex; justify-content: space-between;"> <div>           ppm = parts per million            bpf = blows per foot            bgs = below ground surface        N/W = No Well Installed         </div> <div>           (a) = Analytical sample collected            ▼ = water level at completion         </div> </div>										
Driller:                    Eichelbergers				Depth to Water:            7.00 ft bgs						
Drilling Method:				Date of Measurement:						
Field Inspector:            MSP / JTB				Project No.:                41569313.00002						



# Soil Boring Log

Boring No.: HP-6  
Monitoring Well No.:

URS No. HP-6

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/5/09  
Date Finished: 1/5/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Gray med. ang. GRAVEL (Dry)				0.0		
		Brown f-c SAND, w/ ang. gravel (Dry)				0.0		
						0.0		
		Brown m-c SAND, w/ ang. gravel (Moist)				0.0		
						0.0		
5		Brown m-c SAND, w/ intermittent coarse ang. gravel (Moist)				0.0		
						0.0		
		Brown m-c SAND, w/ intermittent coarse ang. gravel (Saturated)				0.0		
		Brown soft silty to fine sandy CLAY (Saturated)				0.0		
						0.0		
		Brown soft clayey coarse SAND, w/ intermittent med. ang. gravel (Saturated)				0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 7.00 ft bgs  
Date of Measurement:  
Project No.: 41569313.00002



<b>Soil Boring Log</b>				<b>Boring No.: HP-6</b> <b>Monitoring Well No.:</b>							
<b>Project:</b> The Dow Chemical Company Philadelphia, PA				<b>Date Started:</b> 1/5/09 <b>Date Finished:</b> 1/5/09							
<b>Survey</b> N <b>Location:</b> E		<b>Ground</b> <b>Elevation:</b> ft.		<b>Inner Casing</b> <b>Elevation:</b> ft.		<b>Outer Casing</b> <b>Elevation:</b> ft.					
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION				LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
<div style="position: relative; height: 500px;"> <div style="position: absolute; top: 0; left: 0; right: 0; border-bottom: 1px solid black;"></div> <div style="position: absolute; top: 10%; left: 0; right: 0; border-bottom: 1px solid black;"></div> <div style="position: absolute; top: 20%; left: 0; right: 0; border-bottom: 1px solid black;"></div> <div style="position: absolute; top: 30%; left: 0; right: 0; border-bottom: 1px solid black;"></div> <div style="position: absolute; top: 40%; left: 0; right: 0; border-bottom: 1px solid black;"></div> <div style="position: absolute; top: 50%; left: 0; right: 0; border-bottom: 1px solid black;"></div> <div style="position: absolute; top: 60%; left: 0; right: 0; border-bottom: 1px solid black;"></div> <div style="position: absolute; top: 70%; left: 0; right: 0; border-bottom: 1px solid black;"></div> <div style="position: absolute; top: 80%; left: 0; right: 0; border-bottom: 1px solid black;"></div> <div style="position: absolute; top: 90%; left: 0; right: 0; border-bottom: 1px solid black;"></div> </div>		End of Boring 10' bgs									
<b>Notes:</b> ppm = parts per million                      bpf = blows per foot                      (a) = Analytical sample collected bgs = below ground surface                N/W = No Well Installed                      ▼ = water level at completion											
Driller:                      Eichelbergers				Depth to Water:                      7.00 ft bgs							
Drilling Method:				Date of Measurement:							
Field Inspector:                      JTB / MC				Project No.:                      41569313.00002							

URS No. HP-6



# Soil Boring Log

Boring No.: HP-7 /  
Monitoring Well No.: TW-58S

Project: The Dow Chemical Company  
Philadelphia, PA

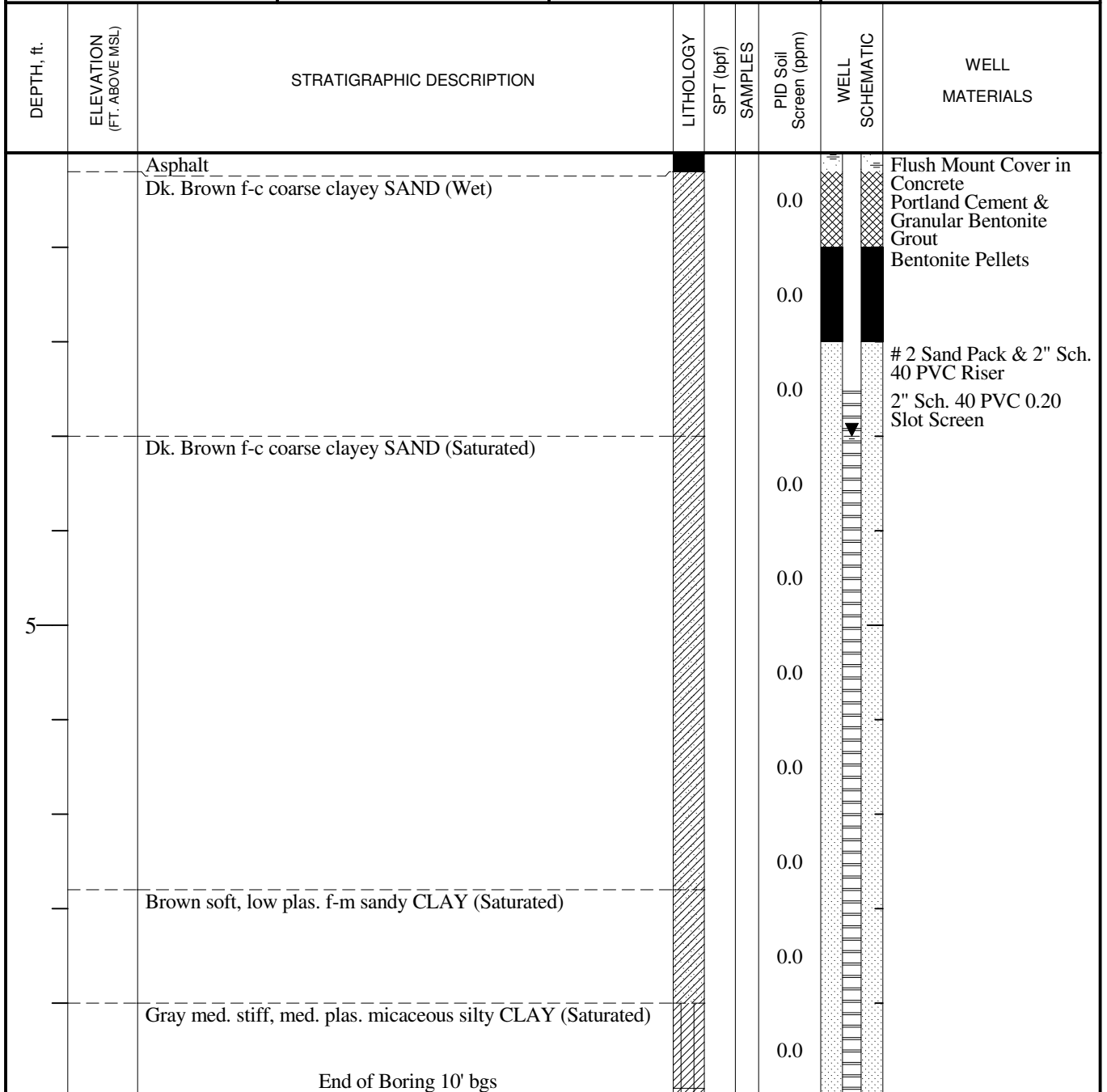
Date Started: 2/2/09  
Date Finished: 2/2/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.



## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: MSP / JTB

Depth to Water: 3.00 ft bgs  
Date of Measurement:  
Project No.: 41569313.00002



**Boring No.: HP-7**  
**Monitoring Well No.: TW-58S**

URS No. HP-7

[illegible]



# Soil Boring Log

Boring No.: HP-8 / SB-296

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/11/08  
Date Finished: 12/11/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Gray f-c ang. gravel (Dry)				0.0		
		Brown f-c clayey SAND, w/ ang. gravel & bricks frags (Moist)				0.0		
		Grayish Brown f-m SAND (Moist)				0.0		
		Grayish Brown f-m SAND (Moist)				0.0		
		Grayish Brown f-m SAND (Saturated)				0.0	▼	
5		Lt. Brown med. clayey SAND (Saturated)						
		End of Boring 7' bgs						Water Sample Collected at 7' bgs

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers

Depth to Water: 3.50 ft bgs

Drilling Method:

Date of Measurement:

Field Inspector: MSP / JTB

Project No.: 41569313.00002



# Soil Boring Log

Boring No.: HP-9 /  
Monitoring Well No.: TW-59S

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/2/09  
Date Finished: 2/2/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Brown silty to fine sandy CLAY, w/ fine ang. gravel (Moist)				0.0		Flush Mount Cover set in concrete
						0.0		Granular Bentonite & Portland Cement Grout
						0.0		Bentonite Pellets
		Black silty to fine sandy CLAY, w/ f-c ang. gravel (Wet)				0.0		
						0.0		# 2 Sand Pack & 2" Sch. 40 PVC Riser
						0.0		2" Sch. 40 PVC 0.20 Slot Screen
5		Brown f-c sandy CLAY, w/ coarse ang. gravel (Saturated)						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement:  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: HP-9 /  
Monitoring Well No.: TW-59S

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/2/09  
Date Finished: 2/2/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15		Gray soft-med. stiff, low-med. plas. micaceous silty CLAY (Saturated-Wet)						
		End of Boring 15' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion



Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement:  
Project No.: 41569313.00002



**Boring No.: HP-9**  
**Monitoring Well No.: TW-59S**

URS No. HP-9

Project: The Dow Chemical Company Philadelphia, PA				Date Started: 12/11/09 Date Finished: 12/11/09						
Survey Location: N E		Ground Elevation: ft.		Inner Casing Elevation: ft.			Outer Casing Elevation: ft.			
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION			LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Brown silty to fine sandy CLAY, w/ fine ang. gravel (Moist)						0.0		Water Sample Collected at 7' bgs
		Black silty to fine sandy CLAY, w/ f-c ang. gravel (Wet)						0.0		
		Brown f-c sandy CLAY, w/ coarse ang. gravel (Saturated)						0.0		
5		End of Boring 7' bgs								
Notes: ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected bgs = below ground surface      N/W = No Well Installed      ▼ = water level at completion										
Driller: Eichelbergers		Depth to Water: 5.00 ft bgs								
Drilling Method:		Date of Measurement:								
Field Inspector: MSP / JTB		Project No.: 41569313.00002								



# Soil Boring Log

Boring No.: HP-10  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/11/09  
Date Finished: 12/11/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown f-c SAND, w/ gravel (Dry)				0.0		
		Grayish Brown f-c SAND, w/ ang. gravel (Moist)				0.0		
						0.0		
		Grayish Brown f-c SAND, w/ ang. gravel (Saturated)					▼	
		Dk. Brown f-c SAND, w/ ang. gravel (Saturated)						
5								
		End of Boring 7' bgs						Water Sample Collected at 7' bgs

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: MSP / JTB

Depth to Water: 3.00 ft bgs  
Date of Measurement:  
Project No.: 41569313.00002



# Soil Boring Log

**Boring No.: SB-200**  
**Monitoring Well No.:**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 12/11/08  
**Date Finished:** 12/11/08

**Survey** N  
**Location:** E

**Ground**  
**Elevation:** ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt				0.0		
		Dk. Brown f-c SAND, w/ f-c ang. gravel & brick frags. (Moist)				0.0		
						0.0		
		Brown clayey m-c SAND (Moist)				0.0		
						0.0		
		Brown clayey m-c SAND (Saturated)				0.0	▼	
		Dk. grayish brown to black clayey m-c SAND (Saturated)						
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Eichelbergers  
**Drilling Method:** Geoprobe 6620DT  
**Field Inspector:** MSP / JTB

**Depth to Water:** 3.50 ft bgs  
**Date of Measurement:** 12/11/2008  
**Project No.:** 41569313.00002



**Boring No.: SB-201**  
**Monitoring Well No.:**

URS No. SB-201

[illegible]



# Soil Boring Log

Boring No.: SB-202  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/12/08  
Date Finished: 12/12/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Gray f-c ang. GRAVEL (Dry)				0.0		
		Dk. Brown f-c SAND, w/ ang. gravel (Dry)				0.0		
		Brown f-c loose SAND & GRAVEL (Saturated)					▼	
		Dk. Brown f-c loose SAND & GRAVEL (Saturated)						
		Black f-c loose SAND & GRAVEL (Saturated) Note: Sheen on water.						
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 2.00 ft bgs  
Date of Measurement: 12/12/2008  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-203

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/12/08  
Date Finished: 12/12/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Dk. Brown f-c med. dense SAND, w/ ang. gravel & wood frags (Moist)				0.0		
		Brown clayey f-c loose SAND, w/ rounded gravel (Wet)				0.0		
		Brown clayey f-c loose SAND, w/ rounded gravel (Saturated)					▼	
		White & Black ("salt & pepper") med. sandy CLAY (Saturated)						
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 2.00 ft bgs  
Date of Measurement: 12/12/2008  
Project No.: 41569313.00002



**Boring No.: SB-204**  
**Monitoring Well No.:**

URS No. SB-204

**URS**



**Boring No.: SB-205**  
**Monitoring Well No.:**

URS No. SB-205

[illegible]



# Soil Boring Log

Boring No.: SB-206

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/15/09  
Date Finished: 12/15/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Red & Gray CONCRETE & BRICK frags (Dry)				0.0		
		Gray coarse SAND, w/ ang. gravel (Wet)						
		Brown coarse SAND, w/ ang. gravel (Wet)				0.0		
		Brown coarse SAND, w/ ang. gravel (Saturated)					▼	
		Brown med. SAND & decayed WOOD frags (Saturated)						
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 2.00 ft bgs  
Date of Measurement: 12/15/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-207  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/15/08  
Date Finished: 12/15/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Gray f-c ang. GRAVEL (Dry)				0.0		
		Brown m-c SAND (Moist)						
		Lt. Tan coarse SAND (Moist)				0.0		
		Reddish Tan coarse SAND, w/ ang. gravel (Moist)						
		Red coarse SAND, w/ ang. gravel (Wet)				0.0		
						0.0		
		Dk. Red coarse SAND & ang. GRAVEL (Saturated)					▼	
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 4.00 ft bgs  
Date of Measurement: 12/15/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-209

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/12/08  
Date Finished: 12/12/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Dk. Brown to Black f-c SAND (Dry)				0.0		
		Brown clayey f-c SAND (Wet)						
						0.0		
		Brown clayey f-c SAND (Saturated)					▼	
		Dk. Brown clayey f-c SAND (Saturated)						
		Black clayey f-c SAND (Saturated)						
5		Concrete						
		Refusal at 4' 9" bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 2.00 ft bgs  
Date of Measurement: 12/12/2008  
Project No.: 41569313.00002



Soil Boring Log						Boring No.: SB-210 Monitoring Well No.:		
Project: The Dow Chemical Company Philadelphia, PA					Date Started: 2/9/09 Date Finished: 2/9/09			
Survey Location: N E		Ground Elevation: ft.		Inner Casing Elevation: ft.			Outer Casing Elevation: ft.	
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Red BRICK fragments				0.0		
		Dk. Brown f-c SAND and f-c GRAVEL (Dry)				0.0		
		Red BRICK fragments				0.0		
		Dk. Brown f-c SAND & f-c GRAVEL (Wet)				0.0		
		Dk. Brown f-c SAND & f-c GRAVEL (Saturated)				0.0		
5		End of Boring 5' bgs						

Notes:  
 ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected  
 bgs = below ground surface    N/W = No Well Installed      = water level at completion

Driller: Eichelbergers	Depth to Water: 4.50 ft bgs
Drilling Method:	Date of Measurement:
Field Inspector: JTB / MC	Project No.: 19998083.00003

URS No. SB-210



[illegible]**URS**



# Soil Boring Log

Boring No.: SB-212

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/21/09  
Date Finished: 1/21/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Concrete						
		VOID						
5								
		Brown med. SAND, w/ angular gravel and brick fragments (Wet)				0.0		
		Black f-c SAND, w/ f-c angular gravel (Saturated)						
		End of Boring 10' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 8.00 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-213  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/6/09  
Date Finished: 1/6/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown f-c SAND, w/ coarse ang. gravel (Moist)				0.0		
						0.0		
		Black f-c SAND & f-c ang. GRAVEL (Moist)				0.0		
		Black f-c SAND & f-c ang. GRAVEL (Wet)						
		Black f-c SAND & f-c ang. GRAVEL (Saturated)						
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 4.00 ft bgs  
Date of Measurement: 1/6/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-214  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/6/09  
Date Finished: 1/6/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown med. den. silty fine SAND, w/ ang. gravel (Dry)				0.0		
		Black med. den. f-c SAND, w/ ang. gravel (Dry)				0.0		
		Black f-c SAND, w/ m-c subrounded gravel (Wet)				0.0		
		Black f-c SAND, w/ m-c subrounded gravel (Saturated)					▼	
		Dk. Brown f-c SAND, w/ m-c subrounded gravel (Saturated)						
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 3.00 ft bgs  
Date of Measurement: 1/6/2009  
Project No.: 41569313.00002



**Boring No.: SB-215**  
**Monitoring Well No.:**

URS No. SB-215

[illegible]



# Soil Boring Log

Boring No.: SB-216  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/9/09  
Date Finished: 2/9/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Dk. Brown f-c SAND, w/ ang. f-c gravel (Moist)				0.0		
						0.0		
		Dk. Brown f-c SAND, w/ ang f-c gravel (Saturated)					▼	
		Gray silty CLAY, low density, low plasticity (Saturated)						
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 2.00 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-218

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/12/09  
Date Finished: 12/12/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown f-c SAND, w/ round f-m gravel (Moist)				0.0		
		Dk. Grayish Black, SILT (Moist)						
		Brown f-c SAND, w/ round f-m gravel (Moist)				0.0		
		Brown f-c SAND, w/ round f-m gravel (Saturated)				0.0		
5		End of the Boring 5' bgs					▼	

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 5.00 ft bgs  
Date of Measurement: 12/12/2009  
Project No.: 41569313.00002

URS No. SB-218



**Boring No.: SB-219**  
**Monitoring Well No.:**

URS No. SB-219

# URS



**Boring No.: SB-221**  
**Monitoring Well No.:**

URS No. SB-221

[illegible]



# Soil Boring Log

Boring No.: SB-222

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/15/09  
Date Finished: 12/15/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Gray f-c ang. GRAVEL (Dry)				0.0		
		Brown m-c SAND, w/ ang. gravel & brick frags (Moist)						
		Tan med. SAND, w/ ang. gravel (Moist)				0.0		
		Brown m-c SAND, w/ dense ang. & rounded gravel (Wet)				0.0		
		Brown m-c SAND, w/ dense ang. & rounded gravel (Saturated)				0.0		
5		End of Boring 5' bgs				0.0	▼	

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 5.00 ft bgs  
Date of Measurement: 12/15/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-223

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/15/09  
Date Finished: 12/15/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Dk. Brown f-c SAND (Dry)				0.0		
		Brown silty SAND, w/ ang. gravel (Moist)						
						0.0		
		Brown coarse SAND, w/ rounded gravel (Wet)				0.0		
		Brown silty CLAY (Saturated)					▼	
		Dk. Red coarse SAND, w/ rounded gravel (Saturated)						
5		Dk. Brown decayed WOOD frags (Saturated)						
		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 3.00 ft bgs  
Date of Measurement: 12/15/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-224

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/15/09  
Date Finished: 12/15/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown & Gray f-c SAND, w/ ang. gravel & brick frags (Dry)				0.0		
						0.0		
		Lt. Brown coarse SAND (Wet)				1.3		
		Dk. Brown coarse SAND & ang. GRAVEL (Wet)					▼	
		Dk. Brown coarse SAND & ang. GRAVEL (Saturated)						
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 3.00 ft bgs  
Date of Measurement: 12/15/2009  
Project No.: 41569313.00002



**Boring No.: SB-225**  
**Monitoring Well No.:**

URS No. SB-225

[illegible]



**Boring No.: SB-226**  
**Monitoring Well No.:**

URS No. SB-226

Sheet 1 of 1



# Soil Boring Log

Boring No.: SB-227  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/7/09  
Date Finished: 1/7/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown med. dense f-c SAND & f-m ang. GRAVEL (Moist)				0.0		
						0.0		
		Brown med. dense f-c SAND & f-m ang. GRAVEL (Wet)				0.0		
		Brown med. dense f-c SAND & f-m ang. GRAVEL (Saturated)					▼	
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 3.00 ft bgs  
Date of Measurement: 1/7/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-228

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/12/08  
Date Finished: 12/12/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Dk. Brown f-c SAND, w/ gravel & brick frags (Moist)				0.0		
		Gray stiff CLAY (Moist)						
		Brown clayey med. SAND (Moist)				0.7		
						1.6		
						14.6		
		Brown very loose f-m SAND, w/ rounded gravel (Wet)						
						6.0		
5		Brown very loose f-m SAND, w/ rounded gravel (Saturated)					▼	
		End of Boring 10' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 5.00 ft bgs  
Date of Measurement: 12/12/2008  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-229

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/12/08  
Date Finished: 12/12/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Gray f-c ang. GRAVEL (Dry)				0.7		
		Black f-c dense SAND, w/ ang. gravel & brick frags (Moist)						
						0.5		
						1.1		
						1.0		
		Brown f-c loose SAND, w/ rounded gravel (Saturated)					▼	
		Pinkish Tan softy silty CLAY (Saturated)						
5		Brown f-c loose SAND, w/ rounded gravel (Saturated)						
		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 4.00 ft bgs  
Date of Measurement: 12/12/2008  
Project No.: 41569313.00002

URS No. SB-229



# Soil Boring Log

Boring No.: SB-230

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/7/09  
Date Finished: 1/7/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Black to DK. Brown med. dense micaceous f-m SAND, w/ m-c ang. gravel. (Moist)				0.0		
		Brown med. dense micaceous f-m SAND, w/ m-c ang. gravel. (Moist)				0.0		
		Brown med. dense micaceous f-m SAND, w/ m-c ang. gravel. (Wet)				0.0		
		Brown med. dense micaceous f-m SAND, w/ m-c ang. gravel. (Saturated)					▼	
		Brown med. dense, f-c SAND & f-m GRAVEL (Saturated)						
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 3.00 ft bgs  
Date of Measurement: 1/7/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-231  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/16/08  
Date Finished: 12/16/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Black f-c SAND, w/ ang. gravel (Moist)				0.0		
		Brown med. SAND, w/ rounded gravel (Moist)				0.0		
						0.0		
		Black f-c SAND, w/ sub-ang. gravel (Moist)				0.0		
						0.0		
5		End of Boring 5' bgs					▼	

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 5.00 ft bgs  
Date of Measurement: 12/16/2008  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-233

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/14/09  
Date Finished: 1/14/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Gray and Red FILL, (Building Rubble concrete & brick frags)						
		Asphalt				0.0		
		Brown med, SAND, w/ f-m rounded gravel (Dry)				0.0		
		Black f-c SAND, w/ f-c ang. subrounded gravel (Dry)				0.0		
		Brown med, SAND, w/ f-m rounded gravel (Dry)				0.0		
		Gray, soft, low - med. plas, silty CLAY (Saturated)						
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 4.00 ft bgs  
Date of Measurement: 1/14/2009  
Project No.: 41569313.00002

URS No. SB-233



# Soil Boring Log

Boring No.: SB-234

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/16/09  
Date Finished: 12/16/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Black & Gray f-c SAND, w/ ang. gravel & brick frags (Dry)				0.0		
						0.0		
		Black f-c SAND, w/ dense fine sub. ang. gravel & brick frags (Moist)				0.0		
						0.0		
		Dk. Red f-c SAND, w/ dense fine sub. ang. gravel & brick frags (Moist)				0.0		
						0.0		
5		Dk. Brown coarse SAND & med. dense ang. GRAVEL (Wet to Saturated)					▼	
		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 5.00 ft bgs  
Date of Measurement: 12/16/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-235

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/16/09  
Date Finished: 12/16/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Gray m-c ang. GRAVEL (Dry)				0.0		
		Dk. Brown to Lt. Brown dense f-c SAND, w/ ang. gravel brick frags (Moist)				0.0		
						0.0		
						0.0		
						0.0		
5		Brown well sorted, poorly graded med. SAND (Wet)				0.0		
		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 5.00 ft bgs  
Date of Measurement: 12/16/2009  
Project No.: 41569313.00002



**Boring No.: SB-238**  
**Monitoring Well No.:**

URS No. SB-238

Project: The Dow Chemical Company Philadelphia, PA				Date Started: 12/16/08 Date Finished: 12/16/08							
Survey Location: N E		Ground Elevation: ft.		Inner Casing Elevation: ft.			Outer Casing Elevation: ft.				
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION			LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS	
		Asphalt Gray GRAVEL & CONCRETE frags (Dry)						0.0			
		Dk. Brown f-c SAND, w/ fine ang. gravel (Moist)						0.0			
		Dk. Brown med. stiff CLAY (Wet)						0.0			
								0.0			
		Red BRICK frags (Moist)						0.0			
5		Dk. Brown f-c SAND, w/ fine ang. gravel (Moist)									
		Dk. Brown med. stiff CLAY (Saturated)									
		Dk. Brown f-c SAND, w/ fine ang. gravel (Saturated)									
		Dk. Brown, well sorted, med. SAND (Saturated)									
		Brown coarse SAND, w/ rounded gravel (Saturated)									
		End of Boring 10' bgs									
Notes: <div> <div>ppm = parts per million</div> <div>bgs = below ground surface</div> </div> <div> <div>bpf = blows per foot</div> <div>N/W = No Well Installed</div> </div> <div> <div>(a) = Analytical sample collected</div> <div>▼ = water level at completion</div> </div>											
Driller: Eichelbergers		Depth to Water: 10.00 ft bgs		Drilling Method: Geoprobe 6620DT		Date of Measurement: 12/16/2009		Field Inspector: MSP / JTB		Project No.: 41569313.00002	



# Soil Boring Log

Boring No.: SB-240

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/17/08  
Date Finished: 12/17/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Black, fine to coarse SAND, w/ angular gravel (Dry)						
		Brown, fine to coarse SAND, w/ brick & concrete frags (Dry)						
						0.0		
		Brown, med. stiff, micaceous silty CLAY (Moist)				0.0		
						0.0		
		Red, BRICK frags (Moist)				0.0		
						0.0		
		Brown, med. stiff, micaceous silty CLAY (Moist)				0.0		
5		Brown, med. SAND, w/ rounded gravel & intermittent quartz frags (Moist)				0.0		
						0.0		
						0.0		
						0.0		
						0.0		
						0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 16.00 ft bgs  
Date of Measurement: 12/17/2008  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-240  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/17/08  
Date Finished: 12/17/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
						0.0		
						0.0		
		Brown, med. SAND, w/ intermittent quartz frags (Moist)				0.0		
						0.0		
15		Grayish Brown, fine to coarse SAND, w/ angular ground (Moist)				0.0		
						0.0		
		Gray to Dk Gray, hard, coarse SAND (Saturated)					▼	
		Dk. Red, very dense, SILT (Sarurated)						
		Brown, coarse SAND, w/ rounded gravel (Saturated)						
		Dk. Red, very dense, SILT (Saturated) End of boring 20'						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 16.00 ft bgs  
Date of Measurement: 12/17/2008  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-241  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/14/09  
Date Finished: 1/14/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Weathered Concrete				0.0		
						0.0		
		Dk. Brown to Black f-c SAND, w/ f-c ang. gravel (Moist)				0.0		
						0.0		
						0.0		
5		Lt. Brown well sorted, med. SAND (Moist)				0.0		
		Brown well sorted med. SAND (Moist)				0.0		
		Brown clayey f-m SAND, w/ f-c angular gravel (Wet)				0.0		
		Dk. Brown med. density, med. plas. fine sandy CLAY (Moist)				0.0		
						0.0		
						0.0		
		Black f-c SAND, w/ f-c ang. gravel, brick frags (Moist)				25.6		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 10.00 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-241  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/14/09  
Date Finished: 1/14/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Black clayey f-c SAND, w/ f-c ang. gravel (Saturated)						
15		End of Boring 15' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 10.00 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003



**Boring No.: SB-242**  
**Monitoring Well No.:**

URS No. SB-242

[illegible]



**Boring No.: SB-242**  
**Monitoring Well No.:**

URS No. SB-242

Project: The Dow Chemical Company Philadelphia, PA				Date Started: 1/14/09 Date Finished: 1/14/09						
Survey Location: N E		Ground Elevation: ft.		Inner Casing Elevation: ft.			Outer Casing Elevation: ft.			
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION			LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Dk. Brown f-c SAND, w/ f-c gravel and brick frags (Saturated) Dk. Brown to Black f-c SAND, w/ f-c gravel (Saturated)						0.0	▼	
15		End of Boring 15' bgs								
Notes: ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected bgs = below ground surface      N/W = No Well Installed      ▼ = water level at completion										
Driller: Eichelbergers		Depth to Water: 11.00 ft bgs		Drilling Method:		Date of Measurement:		Field Inspector: JTB / MC		
						Project No.:		19998083.00003		



# Soil Boring Log

Boring No.: SB-248

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/19/08  
Date Finished: 12/19/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown f-m silty SAND, some f-c ang. gravel (Dry)				0.0 13.5		
		Red f-c BRICK frags (Dry)				0.0		
		Brown sandy CLAY to clayey SAND, trace f-m ang. gravel (Dry)				0.0 0.0		
5		Brown f-c silty SAND, trace f-c ang. gravel (Dry)				0.0 0.0		
		CONCRETE (Dry)				2.1		
		Brown f-c silty SAND, trace f-c ang. gravel (Dry)				0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 14.00 ft bgs  
Date of Measurement: 12/19/2008  
Project No.: 41569313.00002



[illegible]

URS No. SB-248



# Soil Boring Log

Boring No.: SB-249

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/19/08  
Date Finished: 12/19/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Red, fine to coarse BRICK frags layer,						
		Brown to Dk. Brown, f-c silty SAND & f-m ang. GRAVEL, w/ trace clay (Dry)				0.0		
						0.0		
						2.2		
						0.0		
5		Brown, f-m silty SAND, w/ some f-c ang. gravel (Dry)				2.4		
						0.0		
						0.0		
						6.1		
						0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 15.00 ft bgs  
Date of Measurement: 12/19/08  
Project No.: 41569313.00002



**Boring No.: SB-249**  
**Monitoring Well No.:**

URS No. SB-249

[illegible]



# Soil Boring Log

Boring No.: SB-251  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/18/08  
Date Finished: 12/18/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Lt. brown, f-c silty SAND (Moist)						
		Dk. Gray, f-m clayey SAND (Moist)				0.0		
		White, coarse angular GRAVEL (Moist)						
		Dk. Gray clayey SILT grading to silty CLAY (Moist) (Strong petrol. odor)				0.8		
						3.2		
		Dk. Gray, f-c ang. GRAVEL (Saturated) (strong petrol. odor)				22.9	▼	
5		End of Boring 5' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 4.50 ft bgs  
Date of Measurement: 12/18/2008  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-252

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/18/08  
Date Finished: 12/18/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
5		Lt. Grayish Brown, f-c silty SAND, & f-c ang. GRAVEL, trace f-c angular brick frags. (Dry)				0.0		
						0.0		
						0.0		
						0.0		
						0.0		
						0.0		
		Lt. Grayish Brown, f-c silty SAND, & f-c ang. GRAVEL, trace f-c ang. brick frags. (Saturated)					▼	
		Brown, f-c silty SAND & f-m ang. GRAVEL, trace coarse ang. gravel, trace wood frags (Saturated)						
		Dk. Gray f-c silty to clayey SAND, with some f-c angular gravel, some organic matter (Saturated) (Strong petrol. odor w/ sheen						
		End of Boring 5' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 6.00 ft bgs  
Date of Measurement: 12/18/2008  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-252  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/18/08  
Date Finished: 12/18/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
5		Lt. Grayish Brown, f-c silty SAND, & f-c ang. GRAVEL, trace f-c angular brick frags. (Dry)				0.0		
						0.0		
						0.0		
						0.0		
						0.0		
						0.0		
		Lt. Grayish Brown, f-c silty SAND, & f-c ang. GRAVEL, trace f-c ang. brick frags. (Saturated)					▼	
		Brown, f-c silty SAND & f-m ang. GRAVEL, trace coarse ang. gravel, trace wood frags (Saturated)						
		Dk. Gray f-c silty to clayey SAND, with some f-c angular gravel, some organic matter (Saturated) (Strong petrol. odor w/ sheen						
		End of Boring 5' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 6.00 ft bgs  
Date of Measurement: 12/18/2008  
Project No.: 41569313.00002



**Boring No.: SB-253**  
**Monitoring Well No.:**

URS No. SB-253

<b>Project:</b>	<b>The Dow Chemical Company Philadelphia, PA</b>						<b>Date Started:</b>	<b>12/16/08</b>						
							<b>Date Finished:</b>	<b>12/16/08</b>						
<b>Survey Location:</b>	N E	<b>Ground Elevation:</b>	ft.				<b>Inner Casing Elevation:</b>	ft.						
<b>Outer Casing Elevation:</b>	ft.													
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION							LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
5		Gray, Tan & Red CONCRETE & BRICK frags (crushed building debris) (Moist)										0.0		
		0.0												
		0.0												
		0.0												
		0.0												
		Gray med. stiff sandy, gravelly CLAY (Wet)									0.0			
		End of Boring 10' bgs												
Notes: ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected bgs = below ground surface    N/W = No Well Installed      ▼ = water level at completion														
Driller:		Eichelbergers						Depth to Water:		10.00 ft bgs				
Drilling Method:		Geoprobe 6620DT						Date of Measurement:		12/16/2008				
Field Inspector:		MSP / JTB						Project No.:		41569313.00002				



# Soil Boring Log

Boring No.: SB-254

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/16/08  
Date Finished: 12/16/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Black, fine to coarse SAND & GRAVEL (Dry)						
		Brown, med. SAND, w/ concrete frags (Dry)				0.0		
						0.0		
		Dk. Brown to Brown, f-c SAND, w/ rounded gravel & brick frags (Moist)				0.0		
						0.0		
		Dk. Brown to Brown, f-c SAND, w/ rounded gravel & brick frags (Saturated)				0.0	▼	
5		End of Boring 5' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 4.50 ft bgs  
Date of Measurement: 12/16/2008  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-255

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/14/09  
Date Finished: 1/14/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Concrete						
		Dk. Brown f-c SAND, w/ f-c gravel (Dry)				0.0		
						0.0		
						0.0		
		Dk. Brown med. SAND, w/ f-c rounded gravel (Moist)				0.0		
						0.0		
5		Dk. Brown f-c SAND, w/ f-m ang. subrounded gravel (Moist)				0.0		
		Dk. Brown f-c SAND, w/ f-m ang. subrounded gravel (Saturated)					▼	
		Dk. Brown soft, low plas. f-m sandy CLAY (Saturated)						
		Lt. Brown soft, low plas. f-m sandy CLAY (Saturated)						
		Dk. Brown soft, low plas. f-m sandy CLAY (Saturated)						
		End of Boring 10' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 6.00 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-256  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/14/09  
Date Finished: 1/14/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		BRICK & CONCRETE frags (Building Rubble)						
		Asphalt				0.0		
		Dk. Brown f-m SAND, w/ m-c ang. gravel (Moist)				0.8		
		Black f-c SAND, w/ f-c ang. gravel (Moist)				1.0		
						0.6		
						0.5		
5						1.9		
		Black f-c SAND, w/ f-c ang. gravel (Saturated)					▼	
		End of Boring 10' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 6.00 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-257

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/18/08  
Date Finished: 12/18/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown, f-c clayey SAND & f-c ang. GRAVEL, w/ brick frags, and trace clay and glass frags (Dry)				0.0		
						0.0		
		Dk. Brown, f-c silty SAND & fine ang. GRAVEL (Dry)				0.0		
						0.0		
5		Dk. Gray f-m silty SAND, w/ some clay (Dry) (Strong odor)				0.0		
						970		
		Yellowish brown, woody debris layer & f-c ang. gravel (Saturated)						
		Dk. Gray f-c ang. GRAVEL & woody debris, and trace f-c sand (Saturated) (Strong odor)						
		End of Boring 10' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 7.50 ft bgs  
Date of Measurement: 12/18/2008  
Project No.: 41569313.00002



**Boring No.: SB-258**  
**Monitoring Well No.:**

URS No. SB-258

Project: The Dow Chemical Company Philadelphia, PA				Date Started: 12/18/08 Date Finished: 12/18/08						
Survey Location: N E		Ground Elevation: ft.		Inner Casing Elevation: ft.			Outer Casing Elevation: ft.			
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION			LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt								
		Concrete								
		BRICK & CONCRETE frags (Building Rubble)								
		Concrete								
5		Brown well sorted, med. dense, med. SAND (Moist)								
		Black well sorted, med. dense, med. SAND (Moist)						10.2		
		Black well sorted, med. dense, med. SAND, w/ f-c gravel frags, wood frags (Saturated)							▼	
		End of Boring 10' bgs								
Notes: <div> <div>ppm = parts per million</div> <div>bgs = below ground surface</div> </div> <div> <div>bpf = blows per foot</div> <div>N/W = No Well Installed</div> </div> <div> <div>(a) = Analytical sample collected</div> <div>▼ = water level at completion</div> </div>										
Driller: Eichelbergers Drilling Method: Field Inspector: JTB / MSP					Depth to Water: 6.00 ft bgs Date of Measurement: Project No.: 19998083.00003					



# Soil Boring Log

Boring No.: SB-259

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/22/08  
Date Finished: 12/22/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown to Lt. Brown f-m silty SAND, some clay, some f-c ang. gravel. (Dry)				0.0		
						0.0		
		Grayish Brown, silty CLAY, trace fine to med. sand (Dry)				0.0		
		Lt. Gray to Grayish Mauve, f-c SAND (Dry)				0.0		
						0.0		
5		Grayish Brown to Red, silty CLAY (Dry)				0.0		
						0.0		
		Dk. Gray f-c silty SAND & f-c ang. GRAVEL (odor) (Saturated)				0.0	▼	
						0.0		
						0.0		
		End of Boring 10' bgs				0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 7.00 ft bgs  
Date of Measurement: 12/22/2008  
Project No.: 41569313.00002

URS No. SB-259



# Soil Boring Log

Boring No.: SB-260

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/18/08  
Date Finished: 12/18/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown f-c silty SAND & f-c round & ang. GRAVEL (Dry)				0.0		
		Red Brick (Dry)				0.0		
		Brown to Grayish Brown, mottled silty CLAY (Dry)				0.0		
						0.0		
5		Dk. Gray coarse SAND (Dry)				76		
		Brown coarse SAND (Dry)						
		Dk. Gray coarse SAND (Dry)				30.3		
		Dk. Gray coarse SAND (Saturated)				173	▼	
		End of Boring 10' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 7.00 ft bgs  
Date of Measurement: 12/18/08  
Project No.: 41569313.00002



**Boring No.: SB-261**  
**Monitoring Well No.:**

URS No. SB-261

[illegible]



# Soil Boring Log

Boring No.: SB-262

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/18/08  
Date Finished: 12/18/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Dk. Gray f-c silty SAND & f-c ang. GRAVEL (Dry)				0.0		
						686		
		Dk. Gray f-c silty SAND & f-c ang. GRAVEL (Saturated)					▼	
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 3.00 ft bgs  
Date of Measurement: 12/18/2008  
Project No.: 41569313.00002

URS No. SB-262



**Boring No.: SB-263**  
**Monitoring Well No.:**

URS No. SB-263

[illegible]



**Boring No.: SB-264**  
**Monitoring Well No.:**

URS No. SB-264

Sheet 1 of 1



**Boring No.: SB-265**  
**Monitoring Well No.:**

URS No. SB-265

[illegible]



# Soil Boring Log

**Boring No.: SB-266**  
**Monitoring Well No.:**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 1/5/09  
**Date Finished:** 1/5/09

**Survey Location:** N  
E

**Ground Elevation:** ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Gray m-c ang. GRAVEL (Dry)						
		Brown f-c SAND & med. ang. GRAVEL (Moist)				0.0		
		Brown well sorted soft med. SAND (Moist)				0.0		
		Black m-c SAND & m-c ang. GRAVEL (Moist)				0.0		
		Black m-c SAND & m-c ang. GRAVEL (Saturated)					▼	
		Concrete						
5		Brown well sorted soft med. SAND (Moist)						
		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Eichelbergers  
**Drilling Method:** Geoprobe 6620DT  
**Field Inspector:** JTB / MC

**Depth to Water:** 3.00 ft bgs  
**Date of Measurement:** 1/5/2009  
**Project No.:** 41569313.00002



# Soil Boring Log

**Boring No.: SB-267**  
**Monitoring Well No.:**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 12/18/08  
**Date Finished:** 12/18/08

**Survey** N  
**Location:** E

**Ground**  
**Elevation:** ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown to Reddish Brown f-c silty SAND, with some f-c ang., and some clay (Dry) (strong odor)				0.0 4.0		
						18.4		
		Brown to Reddish Brown f-c silty SAND, with some f-c ang., and some clay (moist) (strong odor) (Saturated at 5' bgs)				239		
						2788		
5		End of Boring 5" bgs.					▼	

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Eichelbergers  
**Drilling Method:** Geoprobe 6620DT  
**Field Inspector:** MSP / JTB

**Depth to Water:** 5.00 ft bgs  
**Date of Measurement:** 12/18/2008  
**Project No.:** 41569313.00002

URS No. SB-267



**Boring No.: SB-268**  
**Monitoring Well No.:**

URS No. SB-268

<b>Project:</b> The Dow Chemical Company Philadelphia, PA				<b>Date Started:</b> 1/7/09 <b>Date Finished:</b> 1/7/09						
<b>Survey Location:</b>		N E	<b>Ground Elevation:</b>	ft.	<b>Inner Casing Elevation:</b>		ft.	<b>Outer Casing Elevation:</b>	ft.	
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION			LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt								
		Black f-c SAND & f-c ang. GRAVEL, w/ intermittent brick frags (Dry)						0.0		
		Black f-c SAND & f-c ang. GRAVEL, w/ intermittent brick frags (Moist)						0.0		
								0.0		
								0.0		
5		Brown fine SAND, w/ f-c ang. gravel (Moist)						0.0		
		Black fine SAND, w/ f-c ang. gravel (Saturated)						0.0	▼	
		End of Boring 10' bgs								
Notes: ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected bgs = below ground surface    N/W = No Well Installed      ▼ = water level at completion										
Driller:		Eichelbergers			Depth to Water:		6.00 ft bgs			
Drilling Method:		Geoprobe 6620DT			Date of Measurement:		1/7/2009			
Field Inspector:		JTB / MC			Project No.:		41569313.00002			



[illegible]

**URS**



# Soil Boring Log

**Boring No.: SB-270**  
**Monitoring Well No.:**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 1/9/09  
**Date Finished:** 1/9/09

**Survey** N  
**Location:** E

**Ground**  
**Elevation:** ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Black med. dense, f-c SAND, w/ f-c gravel and brick frags (Dry to Moist)				0.0		
						0.7		
						0.0		
						1.7		
5		Black med. dense, f-c SAND, w/ f-c gravel and brick frags (Saturated)					▼	
		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Eichelbergers  
**Drilling Method:**  
**Field Inspector:** JTB / MC

**Depth to Water:** 4.50 ft bgs  
**Date of Measurement:**  
**Project No.:** 19998083.00003



# Soil Boring Log

Boring No.: SB-271  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/9/09  
Date Finished: 1/9/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Gray hard, f-c SAND & f-c GRAVEL (Dry)				0.0		
		Black f-m SAND, w/ intermittent ang. & subrounded gravel (Moist)				0.0		
		Brown to Lt. Brown med. dense, f-m SAND, w/ ang. subrounded gravel (Moist)				0.0		
		Black med. dense, f-c SAND, w/ f-m gravel and brick frags (Moist)				0.0		
						0.0		
						0.0		
5		Black med. dense, f-c SAND, w/ f-m gravel and brick frags (Saturated)				0.0	▼	
		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-272

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/8/09  
Date Finished: 1/8/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Gray f-c SAND, w/ med. ang. gravel (Dry)				0.0		
		Brown med. dense, clayey f-c SAND, w/ f-c ang. subrounded gravel (Moist)				0.0		
						0.0		
						0.0		
5						0.0		
		Lt. Brown soft silty CLAY (Wet)				0.0		
		Lt. Brown med. dense, silty CLAY (Wet)				0.0		
						0.0		
						0.0		
		Black med. dense, f-c SAND, w/ f-c subrounded ang. gravel (Saturated)				0.0		
		End of Boring 10' bgs				0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers

Depth to Water: 9.50 ft bgs

Drilling Method:

Date of Measurement:

Field Inspector: JTB / MC

Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-274

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/7/09  
Date Finished: 1/7/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Dk. Brown to Black, med. dense, f-m SAND, w/ intermittent rounded & ang. gravel. (Moist)				0.0		
						0.0		
		Dk. Brown to Black, med. dense, f-m SAND, w/ intermittent rounded & ang. gravel. (Saturated)					▼	
		Brown f-c SAND, w/ f-m ang. gravel (Saturated)						
5		Dk. Red f-c SAND, w/ f-m ang. gravel (Saturated)						
		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 3.00 ft bgs  
Date of Measurement: 1/7/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-276

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/7/09  
Date Finished: 1/7/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Dk. Brown to Black med. dense, f-c SAND, w/ f-c ang. gravel (Dry, Moist at 2')				0.0		
		Dk. Brown med. dense silty f-c SAND, w/ f-m rounded gravel (Moist)						
		Lt. Brown med dense, silty f-c SAND, w/ f-m rounded gravel (Moist)				0.0		
		Black f-c SAND, w/ f-c ang. gravel (Saturated)					▼	
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 4.50 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-279  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/9/09  
Date Finished: 1/9/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Gravel						
		Concrete				0.0		
		Lt. Brown med. dense, clayey f-c SAND, w/ f-m gravel (Moist)				0.0		
		Dk. Brown hard, clayey f-c SAND, w/ f-c ang. subrounded & rounded gravel (Wet to Saturated)				0.0		
						0.0		
						0.0		
5		End of Boring 5' bgs					▼	

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 4.50 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003



# Soil Boring Log

**Boring No.: SB-280/TW-55S**  
**Monitoring Well No.: TW-55S**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 1/8/09  
**Date Finished:** 1/8/09

**Survey Location:** N  
E

**Ground Elevation:** ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						Flush Mount Casing set in Concrete
		Gray f-c SAND & f-c GRAVEL (Dry)				0.0		Granular Bentonite and Portland Cement Grout
		Dk. Brown WOOD frags (Railroad tie) (Dry)						Bentonite Pellets
		Brown dense clayey coarse SAND, w/ f-m gravel (Moist)				0.0		
		Brown dense coarse SAND, w/ f-c gravel (Moist)				0.0		# 2 Sand Pack & 2' Sch. 40 PVC Riser
		Brown dense coarse SAND, w/ f-c gravel & intermittent brick frags (Saturated)				0.0		2' Sch. 40 PVC 0.20 Slot Screen
5		Gray soft, low - med. plas. micaceous silty CLAY (Saturated)						
		Gray stiff - very stiff, low - med. plas. micaceous silty CLAY (Saturated)						
		End of Boring 10' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Eichelbergers  
**Drilling Method:** Geoprobe 6620DT  
**Field Inspector:** JTB / MC

**Depth to Water:** 3.00 ft bgs  
**Date of Measurement:** 1/8/2009  
**Project No.:** 41569313.00002

URS No. SB-280/TW-55S



# Soil Boring Log

Boring No.: SB-281  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/9/09  
Date Finished: 1/9/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Concrete						
		Lt. Brown med. dense, clayey f-c SAND, w/f-m gravel (Moist)						
		Black f-c SAND, w/ f-m gravel, loose (Moist)						
		Black f-c SAND, w/ f-m gravel, loose (Saturated)					▼	
5								
		Red BRICK frags.						
		Black f-c SAND, w/ f-m gravel (Saturated)						
		Black clayey f-c SAND, w/ f-m gravel (Saturated)						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 4.00 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-281  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/9/09  
Date Finished: 1/9/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Gray soft, low plas. silty CLAY (Saturated)						
		Decomposed WOOD debris Gray med. stiff, low plas. silty CLAY (Saturated)						
15		End of Boring 15' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 4.00 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003

URS No. SB-281



# Soil Boring Log

Boring No.: SB-283

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/9/09  
Date Finished: 1/9/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown med. dense, f-c SAND w/ f-c ang. subrounded gravel (Dry)				0.0		
						0.0		
		Brown med. dense, f-c SAND w/ f-c ang. subrounded gravel (Moist)						
						0.0		
		Brown med. dense, f-c SAND w/ f-c ang. subrounded gravel (Saturated)					▼	
5								
		White to Yellow SILT (Saturated)						
		Brown med. dense, f-c SAND w/ f-c ang. subrounded gravel (Saturated)						
		Gray med. dense, f-c SAND w/ f-c ang. subrounded gravel (Saturated)						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers

Depth to Water: 3.00 ft bgs

Drilling Method:

Date of Measurement:

Field Inspector: JTB / MC

Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-283  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

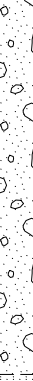


Date Started: 1/9/09  
Date Finished: 1/9/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Black coarse SAND w/ ang. subrounded gravel (Saturated)						
		Decomposed WOOD debris						
		Gray med. dense, med. plas. micaceous silty CLAY (Saturated)						
15		End of Boring 15' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 3.00 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-284  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/8/09  
Date Finished: 1/8/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown soft, f-c SAND w/ f-c ang. gravel (Moist)				6.4		
		Dk. Brown soft, f-c SAND w/ f-c ang. gravel (Wet)				0.0		
		Black soft, f-c SAND w/ f-c ang. gravel (Saturated)					▼	
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 2.00 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003



**Boring No.: SB-285**  
**Monitoring Well No.:**

URS No. SB-285

**URS**



**Boring No.: SB-286**  
**Monitoring Well No.:**

URS No. SB-286

[illegible]



**Boring No.: SB-288**  
**Monitoring Well No.:**

URS No. SB-288

Sheet 1 of 1



[illegible]

**URS**



**Boring No.: SB-290**  
**Monitoring Well No.:**

URS No. SB-290

<b>Project:</b> The Dow Chemical Company Philadelphia, PA						<b>Date Started:</b> 1/15/09 <b>Date Finished:</b> 1/15/09	
<b>Survey Location:</b> N E		<b>Ground Elevation:</b> ft.	<b>Inner Casing Elevation:</b> ft.			<b>Outer Casing Elevation:</b> ft.	
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC
		Asphalt	[Solid Black]				
		Lt. Brown med. dense, micaceous SILT (Dry)	[Horizontal Lines]			0.0	
						0.0	
		Black f-c SAND, w/ intermittent gravel (Dry)	[Stippled]			0.0	
		Red BRICK frags	[Cross-hatched]			0.0	
		Brown med. dense, clayey f-m SAND w/ intermittent coarse ang. gravel (Moist)	[Diagonal Hatching]			0.0	
5						0.0	
		Brown m-c SAND w/ rounded m-c gravel (Wet)	[Stippled]			0.0	
		Brown m-c SAND w/ rounded m-c gravel (Saturated)	[Stippled]				▼
		End of Boring 10' bgs					
Notes: ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected bgs = below ground surface    N/W = No Well Installed      ▼ = water level at completion							
Driller: Eichelbergers				Depth to Water: 7.00 ft bgs			
Drilling Method:				Date of Measurement:			
Field Inspector: JTB / MC				Project No.: 19998083.00003			



# Soil Boring Log

**Boring No.: SB-291**  
**Monitoring Well No.:**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 1/15/09  
**Date Finished:** 1/15/09

**Survey Location:** N  
E

**Ground Elevation:** ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Grass						
		Dk. Brown to Brown clayey SILT, w/ organics (Moist)				0.0		
		Dk. Brown clayey f-c SAND, w/ f-c gravel (Moist)				0.0		
		Brown med. SAND, w/ f-c gravel (Moist)				0.0		
		Dk. Brown m-c SAND, w/ f-m gravel (Moist)				0.0		
5		Dk. Brown m-c SAND, w/ f-m gravel, brick frags (Moist)				0.0		
		Grayish Brown moderately well sorted, med. SAND, w/ dense, white silt lenses (Moist)						
		Grayish Brown moderately well sorted, med. SAND, w/ dense, white silt lenses (Saturated)					▼	
		Black well sorted, med. SAND, w/ intermittent coarse ang. gravel (Saturated)						
End of Boring 10' bgs								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Eichelbergers  
**Drilling Method:**  
**Field Inspector:** JTB / MC

**Depth to Water:** 8.50 ft bgs  
**Date of Measurement:**  
**Project No.:** 19998083.00003

URS No. SB-291



**Boring No.: SB-293**  
**Monitoring Well No.:**

URS No. SB-293

[illegible]



# Soil Boring Log

Boring No.: SB-293

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/12/09  
Date Finished: 1/12/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15		Gray med. density, high plas. silty CLAY (Saturated)						
		End of Boring 15' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 4.00 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-294

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/12/09  
Date Finished: 1/12/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Dk. Gray micaceous silty fine SAND, w/ intermittent f-m ang. subrounded gravel (Dry)				4.9		
		Dk. Brown f-c SAND, w/ f-m gravel (Moist)				0.3		
		Red BRICK frags (Moist)				0.0		
		Lt. Brown f-c SAND (Moist)				0.0		
		Grayish Brown med. dense, silty f-m SAND, w/ f-c rounded gravel, intermittent quartz clasts (Wet)				0.0		
5						0.0		
		Grayish Brown med. dense, silty f-m SAND, w/ f-c rounded gravel, intermittent quartz clasts (Saturated)				0.0		
		Dk. Brown med. dense, coarse SAND (Saturated)						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers

Depth to Water: 6.00 ft bgs

Drilling Method:

Date of Measurement:

Field Inspector: JTB / MC

Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-294

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/12/09  
Date Finished: 1/12/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15		Gray med. dense, high plas. micaceous silty CLAY (Saturated)						
		End of Boring 15' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 6.00 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003

URS No. SB-294



# Soil Boring Log

Boring No.: SB-294

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/12/09  
Date Finished: 1/12/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Dk. Gray micaceous silty fine SAND, w/ intermittent f-m ang. subrounded gravel (Dry)				4.9		
		Dk. Brown f-c SAND, w/ f-m gravel (Moist)				0.3		
		Red BRICK frags (Moist)				0.0		
		Lt. Brown f-c SAND (Moist)				0.0		
		Grayish Brown med. dense, silty f-m SAND, w/ f-c rounded gravel, intermittent quartz clasts (Wet)				0.0		
5						0.0		
		Grayish Brown med. dense, silty f-m SAND, w/ f-c rounded gravel, intermittent quartz clasts (Saturated)				0.0		
		Dk. Brown med. dense, coarse SAND (Saturated)						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers

Depth to Water: 6.00 ft bgs

Drilling Method:

Date of Measurement:

Field Inspector: JTB / MC

Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-294

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/12/09  
Date Finished: 1/12/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15		Gray med. dense, high plas. micaceous silty CLAY (Saturated)						
		End of Boring 15' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 6.00 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003

URS No. SB-294



# Soil Boring Log

Boring No.: SB-295

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/11/08  
Date Finished: 12/11/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Gray m-c ang. GRAVEL (Dry)				0.0		
		Brown f-c SAND, w/ f-c ang. gravel (Wet)						
		Gray SHALE frags (Wet)				0.0		
		Grayish Brown f-c SAND, w/ intermittent brick frags (Wet)				0.0		
						0.0		
		Lt. Brown to Brown, f-c SAND, w/ brick frags (Wet)				0.0		
		Lt. Brown to Brown, f-c SAND, w/ brick frags (Saturated)					▼	
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 4.00 ft bgs  
Date of Measurement: 12/11/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-297  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/7/09  
Date Finished: 1/7/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Gray f-c med. den. SAND & ang. gravel GRAVEL (Dry)				0.0		
		Gray med. den. coarse SAND & GRAVEL (Wet)						
		Tan to Whitish Tan coarse quartz GRAVEL (Wet)				0.0		
		Tan to Whitish Tan coarse quartz GRAVEL (Saturated)						
		Black, med. den. f-c SAND & f-m ang. GRAVEL (Saturated)						
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 2.00 ft bgs  
Date of Measurement: 1/7/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-298  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/8/09  
Date Finished: 1/8/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown med. dense, f-c SAND & f-c GRAVEL (Moist)				0.0		
						0.0		
		Dk. Brown to Black med. dense, f-c SAND & f-c GRAVEL (Saturated)					▼	
		Dk. Brown to Black med. dense, f-c SAND & f-c GRAVEL (Saturated)						
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 2.00 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-299  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/9/09  
Date Finished: 2/9/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Red BRICK frags (Dry)				0.0		
		Brown to tan f-m SAND, w/ f-c ang. gravel (Dry)				0.0		
		Black f-m SAND, w/ f-c ang. gravel (Wet)				0.0		
		Black f-m SAND, w/ f-c ang. gravel (Saturated)				7.2		
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 4.00 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003



**Boring No.: SB-300**  
**Monitoring Well No.:**

URS No. SB-300

Sheet 1 of 1



# Soil Boring Log

Boring No.: SB-301  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/18/08  
Date Finished: 12/18/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Black to Brown to tan, f-m. silty SAND & f-c ang. GRAVEL (Dry)				0.0 69.1		
		Dk. Gray to Brown to Dk. Gray f-m silty SAND, with trace CLAY, trace f-m rounded gravel (Moist) (Strong Odor)				1412		
		Dk. Gray to Brown to Dk. Gray f-m silty SAND, with trace CLAY, trace f-m rounded gravel (Saturated)				3594		
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 4.00 ft bgs  
Date of Measurement: 12/18/08  
Project No.: 41569313.00002

URS No. SB-301



# Soil Boring Log

Boring No.: SB-302

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/18/08  
Date Finished: 12/18/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown, f-c silty SAND & f-c ang. GRAVEL and BRICK frags. (Dry)				0.0		
						0.0		
						0.0		
						0.0		
5		Brown, f-c silty SAND & f-c ang. GRAVEL and BRICK frags. (Moist)				9.7		
						161		
		Dk. Gray f-c silty SAND, w/ f-c ang. gravel (Saturated) (strong odor, sheen)					▼	
		End of Boring 10' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 7.00 ft bgs  
Date of Measurement: 12/18/2008  
Project No.: 41569313.00002

URS No. SB-302



**Boring No.: SB-303**  
**Monitoring Well No.:**

URS No. SB-303

Project: The Dow Chemical Company Philadelphia, PA				Date Started: 1/8/09 Date Finished: 1/8/09						
Survey Location: N E		Ground Elevation: ft.		Inner Casing Elevation: ft.			Outer Casing Elevation: ft.			
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION			LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt								
		Brown f-c SAND & f-c GRAVEL (building debris) (Dry)						0.0		
								0.0		
								0.0		
								0.0		
5								0.0		
		Brown f-c SAND, w/ f-c gravel (Moist)						0.0		
		Black f-c SAND, w/ f-c gravel (Saturated)						0.0		
		End of Boring 10' bgs								
Notes: <div> <div>ppm = parts per million</div> <div>bgs = below ground surface</div> </div> <div> <div>bpf = blows per foot</div> <div>N/W = No Well Installed</div> </div> <div> <div>(a) = Analytical sample collected</div> <div>▼ = water level at completion</div> </div>										
Driller: Eichelbergers		Depth to Water: 6.50 ft bgs		Drilling Method:		Date of Measurement:		Field Inspector: JTB / MC		
								Project No.: 19998083.00003		



# Soil Boring Log

**Boring No.: SB-305**  
**Monitoring Well No.:**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 1/8/09  
**Date Finished:** 1/8/09

**Survey** N  
**Location:** E

**Ground**  
**Elevation:** ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown f-c SAND, w/ f-m ang. gravel (Moist)				0.0		
		Black f-c SAND, w/ f-c ang. gravel (Moist)				13.5		
						1.6		
		Black f-c SAND, w/ f-c ang. gravel, brick frags (Moist)				3.2		
		Black to Dk. Brown hard, silty CLAY, w/ f-c gravel (Wet)				5.4		
5		Black soft, clayey coarse SAND (Saturated)					▼	
		Greenish Gray soft, CLAY (Saturated)						
		Brown soft, CLAY, w/ intermittent brick frags (Saturated)						
		Black soft, clayey coarse SAND (Saturated)						
		End of Boring 10' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Eichelbergers  
**Drilling Method:**  
**Field Inspector:** JTB / MC

**Depth to Water:** 5.00 ft bgs  
**Date of Measurement:**  
**Project No.:** 19998083.00003



# Soil Boring Log

**Boring No.: SB-307**  
**Monitoring Well No.:**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 1/15/09  
**Date Finished:** 1/15/09

**Survey** N  
**Location:** E

**Ground**  
**Elevation:** ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Dk. Brown clayey f-c SAND, w/ f-c ang. gravel (Moist)				0.0		
						0.0		
						0.0		
						0.0		
5						0.0		
						0.6		
		Brown med. SAND, w/ m-c ang. gravel (Moist)				110		
		Dk. Brown clayey f-c SAND, w/ f-c ang. gravel (Moist)				21.4		
		Dk. Brown clayey f-c SAND, w/ f-c ang. gravel (Saturated)					▼	
		End of Boring 10' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Eichelbergers

**Depth to Water:** 8.00 ft bgs

**Drilling Method:**

**Date of Measurement:**

**Field Inspector:** JTB / MC

**Project No.:** 19998083.00003



# Soil Boring Log

Boring No.: SB-308

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/19/08  
Date Finished: 12/19/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown f-m silty SAND & f-c ang. GRAVEL (Dry)				5.9 121		
		Brown f-c clayey SAND (Dry) (strong odor)				207		
		Brown to Dk. Gray to brown f-c silty SAND, trace f-m rounded gravel (Dry)				78.4		
						21.5		
5						9.3		
						2.2		
						1.2		
		Brown to Dk. Gray to brown f-c silty SAND, trace f-m rounded gravel (Saturated) intermittent brick frags					▼	
		Dk. Gray f-c silty SAND, w/ fine ang. gravel (Saturated) (strong odor, sheen)						
		End of Boring 10' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 7.50 ft bgs  
Date of Measurement: 12/19/08  
Project No.: 41569313.00002

URS No. SB-308



# Soil Boring Log

Boring No.: SB-309

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/19/08  
Date Finished: 12/19/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown to Dk. Gray f-c silty SAND & f-m ang. GRAVEL (Dry)				8.4 3.1		
		Brown to Dk. Gray f-c silty SAND, w/ some f-m ang. GRAVEL (Dry)				5.5 81.4 1356		
5		Dk. Gray f-m silty SAND, w/ trace f-c ang. gravel (Dry) (Strong odor)				1996 1723 1880		
		Dk. Gray f-m silty SAND, w/ trace f-c ang. gravel (Saturated) (Strong odor)					▼	
End of Boring 10' bgs.								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 8.00 ft bgs  
Date of Measurement: 12/19/08  
Project No.: 41569313.00002



# Soil Boring Log

**Boring No.: SB-310**  
**Monitoring Well No.:**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 1/13/09  
**Date Finished:** 1/13/09

**Survey** N  
**Location:** E

**Ground**  
**Elevation:** ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown loose, clayey med. SAND (moist)				0.0		
						0.0		
						0.0		
		Brown fine SAND, w/ concrete frags						
		Red BRICK frags						
		Brown well sorted med. SAND, w/ rounded gravel (Moist)				0.0		
						0.0		
5						6.2		
						1.9		
						6.9		
		Reddish Brown med. dense, m-c SAND (Moist)				14.9		
						9.9		
						74.6		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Eichelbergers

**Depth to Water:** 11.00 ft bgs

**Drilling Method:**

**Date of Measurement:**

**Field Inspector:** JTB / MC

**Project No.:** 19998083.00003



# Soil Boring Log

**Boring No.: SB-310**  
**Monitoring Well No.:**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 1/13/09  
**Date Finished:** 1/13/09

**Survey Location:** N  
E

**Ground Elevation:** ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Reddish Brown med. dense, m-c SAND, w/ fine rounded gravel (Moist)						
		Brown med. dense, m-c SAND, w/ fine rounded gravel (Saturated)					▼	
		Grayish Brown med. dense, m-c SAND, w/ fine rounded gravel (Saturated)						
15		End of Boring 15' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Eichelbergers  
**Drilling Method:**  
**Field Inspector:** JTB / MC

**Depth to Water:** 11.00 ft bgs  
**Date of Measurement:**  
**Project No.:** 19998083.00003



**Boring No.: SB-311**  
**Monitoring Well No.:**

URS No. SB-311

Soil Boring Log				Boring No.: SB-311 Monitoring Well No.:			
Project: The Dow Chemical Company Philadelphia, PA			Date Started: 1/13/09 Date Finished: 1/13/09				
Survey Location: N E		Ground Elevation: ft.		Inner Casing Elevation: ft.		Outer Casing Elevation: ft.	
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC
		Asphalt					
		Black f-m SAND, w/ f-m gravel (Dry)				0.0	
		Brown silty f-m SAND, w/ concrete frags (Moist)				0.0	
		Red BRICK frags				0.0	
		Brown f-c clayey SAND, w/ ang. subrounded gravel (Moist)				0.0	
5		Brown f-m SAND, w/ ang. subrounded gravel (Moist)				0.0	
						0.0	
						0.0	
						0.0	
						0.0	
						0.0	
						0.0	
						0.0	

Notes:

ppm = parts per million

bgs = below ground surface

bpf = blows per foot

N/W = No Well Installed

(a) = Analytical sample collected

▼ = water level at completion

Driller: Eichelbergers
Drilling Method:
Field Inspector: JTB / MC

Depth to Water: 13.00 ft bgs
Date of Measurement:
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-311  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/13/09  
Date Finished: 1/13/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
						1.2		
						3.4		
		Brown f-m SAND, w/ ang. subrounded gravel (Wet)				6.8		
		Brown f-m SAND, w/ ang. subrounded gravel. (Strong solvent odor) (Saturated)					▼	
15		End of Boring 15' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 13.00 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003



**Boring No.: SB-313**  
**Monitoring Well No.:**

URS No. SB-313

Project: The Dow Chemical Company Philadelphia, PA				Date Started: 1/13/09 Date Finished: 1/13/09						
Survey Location: N E		Ground Elevation: ft.		Inner Casing Elevation: ft.			Outer Casing Elevation: ft.			
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION			LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt								
		Grayish Brown, clayey f-c SAND, w/ f-c ang. gravel & intermittent brick frags (Moist)						0.0		
								0.0		
								0.0		
								0.0		
								0.0		
5								0.0		
		Brown, well sorted, med. SAND, w/ fine gravel (Saturated)						0.0		
								0.0		
		End of Boring 10' bgs								
Notes: ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected bgs = below ground surface      N/W = No Well Installed      ▼ = water level at completion										
Driller: Eichelbergers					Depth to Water: 6.50 ft bgs					
Drilling Method:					Date of Measurement:					
Field Inspector: JTB / MC					Project No.: 19998083.00003					



# Soil Boring Log

Boring No.: SB-314

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/19/08  
Date Finished: 12/19/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Dk. Gray f-c silty SAND & f-c ang. GRAVEL (Dry)				1.9 4.0		
		Dk. Gray f-c silty SAND (Dry) grading to:				390		
		Lt. Brown sandy SILT (Dry)				1166		
						525		
		Red, BRICK frags (Dry)						
5		Dk. Gray f-c silty SAND & fine ang. GRAVEL (Moist) (strong odor)				615		
		Dk. Gray f-c silty SAND & fine ang. GRAVEL (Saturated) (strong odor)					▼	
		Dk. Gray sandy CLAY, w/ brick frags (Saturated)						
		End of Boring 5' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: MSP / JTB

Depth to Water: 6.00 ft bgs  
Date of Measurement: 12/19/2008  
Project No.: 41569313.00002

URS No. SB-314



# Soil Boring Log

Boring No.: SB-316

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/15/09  
Date Finished: 1/15/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Gray f-c SAND & GRAVEL (Dry)				0.0		
		Dk. Brown f-c SAND, w/ f-c ang. subrounded gravel, intermittent brick frags (Moist)				0.5		
						0.0		
		Brown to Lt. Brown clayey m-c SAND, w/ concrete frags (moist)				0.0		
		Black m-c SAND, w/ m-c rounded gravel (Moist)						
		Black m-c SAND, w/ m-c rounded gravel (Saturated)					▼	
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 4.00 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003

URS No. SB-316



[illegible]

URS No. SB-317



# Soil Boring Log

Boring No.: SB-318

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/13/09  
Date Finished: 1/13/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown to Lt. Brown f-c SAND, w/ f-c ang. subrounded gravel (Moist)				0.0		
						0.0		
		Brown to Lt. Brown f-c SAND, w/ f-c ang. subrounded gravel (Wet)				0.0		
						0.0		
5		Brown clayey f-c SAND, w/ f-c ang. subrounded gravel (Wet)				0.0		
		Brown clayey f-c SAND, w/ f-c ang. subrounded gravel (Saturated)				0.0	▼	
		Grayish Brown f-c SAND, w/ f-c gravel (Saturated)						
		Black f-c SAND, w/ f-c gravel (Saturated)						
		End of Boring 10'bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 5.50 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003

URS No. SB-318



**Boring No.: SB-319**  
**Monitoring Well No.:**

URS No. SB-319

[illegible]



# Soil Boring Log

Boring No.: SB-320

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/15/09  
Date Finished: 1/15/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Black f-c SAND, w/ f-m gravel (Moist)				0.0		
		Dk. Brown med. dense, low plas. med. sandy CLAY (Moist)				0.0		
						0.0		
		Brown med. dense, low plas. med. sandy CLAY (Moist)				0.0		
						0.0		
5						0.0		
		Brown well sorted, med. SAND (Moist)				0.0		
						0.0		
		Grayish Brown well sorted, med. SAND (Moist)				0.3		
		Grayish Brown well sorted, med. SAND, w/ m-c rounded gravel (Saturated)					▼	

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers

Depth to Water: 9.00 ft bgs

Drilling Method:

Date of Measurement:

Field Inspector: JTB / MC

Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-320  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/15/09  
Date Finished: 1/15/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15		Brown med. dense to dense, clayey SILT (Saturated)						
		Brown to Dk. Brown f-c SAND, w/ coarse ang. gravel (Saturated)						
		Brown well sorted, med. SAND (Saturated)						
		End of Boring 15' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 9.00 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-321  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/26/09  
Date Finished: 1/26/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown f-c SAND, w/ f-c ang. gravel, brick & concrete frags (Moist)				9.7		
						32.3		
		Brown f-c SAND, w/ f-c ang. gravel, brick & concrete frags (Saturated)					▼	
5		End of Boring 5'bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method:  
Field Inspector: JTB / MC

Depth to Water: 2.00 ft bgs  
Date of Measurement:  
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-322

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/26/09  
Date Finished: 1/26/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown f-c SAND, w/ f-c gravel, brick & concrete frags (Moist)				0.3		
						0.0		
						0.3		
						0.0		
5		Brown f-c SAND, w/ f-c gravel, brick & concrete frags (Saturated)					▼	
		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers

Depth to Water: 4.50 ft bgs

Drilling Method:

Date of Measurement:

Field Inspector: JTB / MC

Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-323

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/26/09  
Date Finished: 1/26/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Grayish Brown f-c SAND, w/ f-m gravel (Wet)				0.0		
						0.0		
		Grayish Brown f-c SAND, w/ f-m gravel (Saturated)					▼	
5		Brown f-m SAND, w/ f-c ang. subrounded gravel (Saturated)						
		Gray m-c SAND, w/ rounded gravel & quartz clasts (Saturated)						
		Grayish Brown silty micaceous CLAY (Saturated) End of Boring 10' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers

Depth to Water: 2.00 ft bgs

Drilling Method:

Date of Measurement:

Field Inspector: JTB / MC

Project No.: 19998083.00003



# Soil Boring Log

Boring No.: SB-324

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/19/09  
Date Finished: 2/19/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Dk. Brown f-c SAND, w/ f-c ang. gravel (Dry)				0.0		
						0.0		
						0.0		
		Dk. Brown f-c SAND, w/ f-c ang. gravel (Wet)				0.0		
						0.0		
		Dk. Brown f-c SAND, w/ f-c ang. gravel (Saturated)				0.0	▼	
5		Dk. Gray to Black f-c SAND & f-c ang. GRAVEL (Saturated)				0.0		
						0.0		
						0.0		
		Black slightly clayey f-c SAND, w/ f-c ang. gravel & some decayed slightly fibrous "cardboard like" material, intermittent yellowish green "glass like" material (Saturated)				2.0		
						0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 4.50 ft bgs  
Date of Measurement: 12/19/2008  
Project No.: 41569313.00002



**Boring No.: SB-324**  
**Monitoring Well No.:**

URS No. SB-324

[illegible]



# Soil Boring Log

Boring No.: SB-325

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/19/09  
Date Finished: 2/19/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Dk. Brown to Black f-c SAND, w/ f-c GRAVEL (Moist)				0.0		
						0.0		
						0.0		
		Black med. den. well sorted SILT (Moist)				0.0		
		Black f-c SAND & f-c ang. GRAVEL (Wet)				0.0		
5		Black f-c SAND & f-c ang. GRAVEL (Saturated)				0.0	▼	
						0.0		
		Black f-c SAND & f-c ang. GRAVEL, w/ clear glass frags (Saturated)				23.9		
		Lt. whitish yellow silty SAND, w/ "burlap like" woven material (Saturated)				0.0		
		Black f-c SAND, w/ f-c gravel & brick frags (Saturated)						
		Refusal at 9' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 12/19/2008  
Project No.: 41569313.00002



# Soil Boring Log

**Boring No.: SB-326**  
**Monitoring Well No.:**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 2/18/09  
**Date Finished:** 2/18/09

**Survey** N  
**Location:** E

**Ground**  
**Elevation:** ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Dk. Grayish Black f-m SAND, w/ intermittent m-c ang. gravel (Dry)				0.0		
						0.0		
						5.0		
						0.0		
		Dk. Grayish Black f-m SAND, w/ intermittent m-c ang. gravel (Moist)				0.0		
5		Black den. to very den. SILT (Moist)					▼	
		Black m-c SAND (Saturated)				0.0		
		Gray soft, low - med. plas. silty CLAY, w/ white specks & white "cotton like" fibrous material (Saturated)				117		
		Black m-c SAND, w/ intermittent small brick frags (Saturated)				0.0		
						0.0		
						0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Eichelbergers  
**Drilling Method:** Geoprobe 6620DT  
**Field Inspector:** JTB / MC

**Depth to Water:** 5.00 ft bgs  
**Date of Measurement:** 2/18/2009  
**Project No.:** 41569313.00002

URS No. SB-326



**Boring No.: SB-326**  
**Monitoring Well No.:**

URS No. SB-326

[illegible]



# Soil Boring Log

Boring No.: SB-327

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/18/09  
Date Finished: 2/18/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt				0.0		
		Dk. Brown f-c SAND, w/ f-c ang. gravel (Dry)				0.0		
						0.0		
						0.0		
						0.0		
5		Black f-c SAND (Moist)				10.2		
		Black, soft, low to med. plas. silty CLAY, w/ fibrous material & "foil like" material (Moist)				10.0		
		Black f-c SAND (Saturated)				6.8	▼	
						0.0		
						0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 7.00 ft bgs  
Date of Measurement: 2/18/2009  
Project No.: 41569313.00002

URS No. SB-327



**Boring No.: SB-327**  
**Monitoring Well No.:**

URS No. SB-327

[illegible]



# Soil Boring Log

Boring No.: SB-328

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/23/09  
Date Finished: 2/23/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown to Dk. Brown f-c SAND, w/ f-c gravel (Dry)				0.0		
						0.0		
						0.0		
						0.0		
		Brown to Dk. Brown f-c SAND, w/ f-c gravel (Moist - Wet)				17.1		
5						31.3		
		Brown to Dk. Brown f-c SAND, w/ f-c gravel (Saturated)					▼	
						12.2		
						149		
						81.8		
						14.4		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 6.00 ft bgs  
Date of Measurement: 2/23/2009  
Project No.: 41569313.00002

URS No. SB-328



# Soil Boring Log

Boring No.: SB-328

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/23/09  
Date Finished: 2/23/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15		Gray to Dk. Gray soft, low plas. micaceous silty CLAY (Saturated)				5.7 12.2 17.1 51.6 31.5 2.7		
		End of Boring 16' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 6.00 ft bgs  
Date of Measurement: 2/23/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-329

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/23/09  
Date Finished: 2/23/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown to Dk. Brown f-c SAND, w/ f-c ang. gravel (Moist)				0.0		
						0.0		
						0.0		
						0.0		
		Brown to Dk. Brown f-c SAND, w/ f-c ang. gravel (Wet)				> 1000		
5		Reddish Gray clayey silty fine SAND (Saturated)				1349	▼	
		Gray clayey f-m SAND (Saturated)				1277		
		Black f-c SAND & f-m GRAVEL (Saturated) (Poor Recovery)				889		
						85.1		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 2/23/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-329

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/23/09  
Date Finished: 2/23/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15						46.6		
		Gray soft, low plas, micaceous silty CLAY (Saturated)						
		End of Boring 16' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 2/23/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-330

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/23/09  
Date Finished: 2/23/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Dk. Brown to Black f-c SAND, w/ f-c ang. gravel, intermittent brick frags (Moist)				5.2		
						7.4		
						17.4		
						2.9		
		Black f-c SAND, w/ f-c ang. gravel (Saturated)				11	▼	
5						9.4		
						8.2		
						2.7		
						68.5		
						1121		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 4.00 ft bgs  
Date of Measurement: 2/23/2009  
Project No.: 41569313.00002

URS No. SB-330



# Soil Boring Log

Boring No.: SB-330  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/23/09  
Date Finished: 2/23/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15		Dk. Gray to Black m-c SAND, f-c ang. gravel (Saturated)				206		
						63.9		
						12.4		
						11.9		
						6.2		
		Dk. Gray med. stiff, low - med. plas. micaceous silty CLAY (Saturated)				2.2		
		End of Boring 16' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 4.00 ft bgs  
Date of Measurement: 2/23/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-331  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/23/09  
Date Finished: 2/23/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown to Dk. brown f-c SAND, w/ f-c ang. gravel, intermittent brick frags (Dry-Moist)				0.0		
						0.0		
						0.0		
						0.0		
		Black f-c SAND, w/ f-c ang. gravel, intermittent brick frags (Saturated)				0.0	▼	
5		Black f-c SAND, w/ f-c ang. gravel, some decayed wood frags (Saturated)				0.0		
						0.0		
						0.0		
		Black f-c SAND, w/ f-c ang. gravel, intermittent brick frags (Saturated)				0.0		
						0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 4.00 ft bgs  
Date of Measurement: 2/23/2009  
Project No.: 41569313.00002



**Boring No.: SB-331**  
**Monitoring Well No.:**

URS No. SB-331

[illegible]



# Soil Boring Log

Boring No.: SB-334

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/18/09  
Date Finished: 2/18/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown f-c SAND, w/ med. ang. gravel (Dry)				0.0		
		Black f-c SAND, w/ f-m ang. gravel (Dry)						
						0.0		
		Brown f-c SAND, w/ wood frags & brick frags, intermittent rounded gravel (Dry)				4.8		
						4.3		
		Grayish Brown clayey med. SAND (Moist)				3.7		
5		Grayish Brown clayey m-c SAND, w/ m-c ang. gravel (Moist - Wet)				3.9		
						4.6		
		Dk. Brown f-m SAND (Moist - Wet)				61.5		
		Black f-m SAND, w/ decayed fibrous material (Moist - Wet)				6.1		
		Black f-m SAND, w/ decayed fibrous material (Saturated)					▼	
		Dk. Gray clayey f-c SAND, w/ f-c ang. gravel (Saturated)				4.3		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 9.00 ft bgs  
Date of Measurement: 2/18/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-334

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/18/09  
Date Finished: 2/18/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15		Black m-c SAND (Saturated)				3.6		
		Dk. Gray med. stiff to med. to low plas. CLAY (Saturated)				6.4		
		Black & Tan m-c SAND (Saturated)				5.2		
						2.1		
		Dk. Gray soft, low to med. plas. micaceous silty CLAY (Saturated)				3.8		
		End of Boring 15' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 9.00 ft bgs  
Date of Measurement: 2/18/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-335

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/20/09  
Date Finished: 2/20/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown to Dk. Brown SILT & f-c SAND w/ f-c ang. gravel & intermittent fibrous material (Dry)				0.0		
						0.0		
						0.0		
		Black SILT, w/ m-c ang. gravel (Moist)				0.0		
		Brown to Dk. Brown SILT & f-c SAND, w/ f-c ang. gravel (Moist)				0.0		
5		Black slightly clayey f-c SAND, w/ f-c ang. gravel (Wet)				0.0		
						0.0		
						0.0		
		Brown clayey f-c SAND, w/ f-c ang. gravel, w/ intermittent brick frags (Wet)				0.0		
						0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 10.00 ft bgs  
Date of Measurement: 2/20/2009  
Project No.: 41569313.00002



**Boring No.: SB-335**  
**Monitoring Well No.:**

URS No. SB-335

Project:						The Dow Chemical Company Philadelphia, PA																	
						Date Started:				2/20/09													
						Date Finished:				2/20/09													
Survey Location:			N E			Ground Elevation:			ft.			Inner Casing Elevation:			ft.			Outer Casing Elevation:			ft.		
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION							LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS									
15		Black f-c SAND, w/ f-c ang. gravel (Saturated)										0.0											
		End of Boring 15' bgs										0.0											



# Soil Boring Log

**Boring No.: SB-336**  
**Monitoring Well No.:**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 2/20/09  
**Date Finished:** 2/20/09

**Survey Location:** N  
E

**Ground Elevation:** ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Gray to Dk. Gray f-c SAND & SILT, w/ f-c ang. gravel (Dry)				0.0		
						0.0		
						0.0		
		Gray to Dk. Gray f-c SAND & SILT, w/ f-c ang. gravel (Moist)				0.0		
						0.0		
5		Black clayey f-c SAND, w/ f-c gravel (Saturated)				0.0	▼	
		Lt. Gray soft, low plas. f-c sandy CLAY (Saturated)				0.0		
						0.0		
		Dk. Gray med. den. low plas. f-c sandy CLAY (Saturated)				0.0		
						0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Eichelbergers  
**Drilling Method:** Geoprobe 6620DT  
**Field Inspector:** JTB / MC

**Depth to Water:** 5.00 ft bgs  
**Date of Measurement:** 2/20/2009  
**Project No.:** 41569313.00002



# Soil Boring Log

Boring No.: SB-336

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/20/09  
Date Finished: 2/20/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15		End of Boring 15' bgs				2.3		
						3.2		
						3.3		
						0.0		
						0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 2/20/2009  
Project No.: 41569313.00002

URS No. SB-336



# Soil Boring Log

**Boring No.: SB-337**  
**Monitoring Well No.:**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 2/18/09  
**Date Finished:** 2/18/09

**Survey** N  
**Location:** E

**Ground**  
**Elevation:** ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown m-c SAND, w/ med. ang. gravel (Dry)				0.0		
		Black f-c SAND, w/ f-m ang. gravel (Moist)						
		Gray to Tannish Gray clayey med. SAND, w/ med. rounded & subang. gravel (Moist)				0.0		
						0.0		
						0.0		
		Gray to black m-c SAND, w/ ang. gravel & wood debris (Moist)				41		
5		Black f-c SAND, w/ wood frags & gray med. den. frags of "unknown material" (Saturated)				19	▼	
						24.9		
						437		
		Tan soft fibrous material (Saturated)						
		End of Boring 9' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Eichelbergers  
**Drilling Method:** Geoprobe 6620DT  
**Field Inspector:** JTB / MC

**Depth to Water:** 5.00 ft bgs  
**Date of Measurement:** 2/18/2009  
**Project No.:** 41569313.00002



# Soil Boring Log

Boring No.: SB-338

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/20/09  
Date Finished: 2/20/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Dk. Brown f-c SAND, w/ f-c ang. gravel (Dry)				6.5		
						4.2		
						1.2		
		Lt. Tan silty CLAY (Dry)				0.6		
		Gray silty CLAY (slightly sticky material) (Dry)						
		Dk. Brown f-c SAND, w/ f-c ang. gravel (Dry)				0.0		
5		Dk. Brown f-c SAND & f-c ang. GRAVEL, w/ some intermittent white specks (Saturated)				0.0	▼	
						0.0		
						0.0		
						0.0		
						0.0		
						0.0		
						0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 2/20/2009  
Project No.: 41569313.00002

URS No. SB-338



**Boring No.: SB-338**  
**Monitoring Well No.:**

URS No. SB-338

[illegible]



**Boring No.: SB-339**  
**Monitoring Well No.:**

URS No. SB-339

<b>Project:</b> The Dow Chemical Company Philadelphia, PA				<b>Date Started:</b> 2/20/09 <b>Date Finished:</b> 2/20/09						
<b>Survey Location:</b>		N E	<b>Ground Elevation:</b>	ft.	<b>Inner Casing Elevation:</b>		ft.	<b>Outer Casing Elevation:</b>	ft.	
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION			LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt								
		Dk. Brown f-c SAND, w/ f-c ang. gravel (Dry)						0.0		
								0.0		
								0.0		
								0.0		
								0.0		
5		Black SAND & GRAVEL (Saturated) Note: Very poor recovery, very loose)							▼	
Notes: ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected bgs = below ground surface    N/W = No Well Installed      ▼ = water level at completion										
Driller:		Eichelbergers			Depth to Water:		5.00 ft bgs			
Drilling Method:		Geoprobe 6620DT			Date of Measurement:		2/20/2009			
Field Inspector:		JTB / MC			Project No.:		41569313.00002			



# Soil Boring Log

Boring No.: SB-339

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/20/09  
Date Finished: 2/20/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15		Dk. Brown m-c gravel (Saturated)				0.0		
		Grayish Brown med. stiff, low plas. silty CLAY (Moist)				0.0		
		End of Boring 15' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 2/20/2009  
Project No.: 41569313.00002

URS No. SB-339



# Soil Boring Log

Boring No.: SB-340

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/20/09  
Date Finished: 2/20/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Dk. Brown f-c SAND, w/ f-c gravel (Dry)				20.5		
						6.3		
						2.8		
		White soft, silty CLAY ("sticky material") (Dry)				0.0		
		Dk. Brown f-c SAND, w/ f-c gravel (Dry)				0.0		
5		Dk. Brown f-c SAND & f-c ang. GRAVEL (Saturated)				0.0	▼	
						0.0		
						0.0		
						0.0		
						0.0		
						0.0		
						0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 2/20/2009  
Project No.: 41569313.00002

URS No. SB-340



**Boring No.: SB-340**  
**Monitoring Well No.:**

URS No. SB-340

Soil Boring Log						Boring No.: SB-340 Monitoring Well No.:						
Project: The Dow Chemical Company Philadelphia, PA						Date Started: 2/20/09 Date Finished: 2/20/09						
Survey Location: N E		Ground Elevation: ft.		Inner Casing Elevation: ft.				Outer Casing Elevation: ft.				
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION				LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS	
		Dk. Brown to Black f-c SAND, w/ f-c ang. gravel (Saturated)							0.0			
									0.0			
									0.0			
									0.0			
									0.0			
15		End of Boring 15' bgs										
Notes: ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected bgs = below ground surface    N/W = No Well Installed      ▼ = water level at completion												
Driller:		Eichelbergers				Depth to Water:		5.00 ft bgs				
Drilling Method:		Geoprobe 6620DT				Date of Measurement:		2/20/2009				
Field Inspector:		JTB / MC				Project No.:		41569313.00002				



# Soil Boring Log

Boring No.: SB-341  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/20/09  
Date Finished: 2/20/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown - Dk. Brown slightly f-c SAND & f-c ang. GRAVEL (Dry)				0.0		
						0.0		
						0.0		
						0.0		
5		Black f-c SAND & f-c ang. GRAVEL (Saturated)				0.0	▼	
						0.0		
		White silty CLAY (sticky material) (Saturated)				0.0		
		Black f-c SAND & f-c ang. GRAVEL (Saturated)				0.0		
						0.0		
						0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 2/20/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-341  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/20/09  
Date Finished: 2/20/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15		Gray soft to med. stiff, low plas. slightly sandy, silty CLAY, w/ fibrous material throughout (Wet - Moist)				0.0 0.0 0.0 20.2 1054		
		End of Boring 15' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 2/20/2009  
Project No.: 41569313.00002

URS No. SB-341



# Soil Boring Log

Boring No.: SB-342

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/24/09  
Date Finished: 2/24/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown to Dk. Brown f-c SAND, w/ f-m ang. gravel (Moist)				0.0		
		Whitish Tan loose clayey SILT (Moist)				0.0		
		Brown to Dk. Brown f-c SAND, w/ f-m ang. gravel (Moist)				0.0		
		Dk. Brown to Black f-c SAND, w/ f-c ang. gravel (Saturated)				0.0	▼	
5		Dk. Brown to Black w/ slight reddish color, f-c SAND, w/ f-c ang. gravel (Saturated)				0.0		
		Black f-c SAND, w/ f-c ang. gravel (Saturated)				0.0		
						3.1		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 4.00 ft bgs  
Date of Measurement: 2/24/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-342

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/24/09  
Date Finished: 2/24/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Black f-c SAND, w/ f-c ang. gravel, decayed wood frags. (Saturated)				5.5		
						20.4		
						6.2		
						90.9		
						144		
15		Gray soft, low plas. gravelly silty CLAY (Saturated)				59.9		
						8.2		
						10.6		
						4.6		
		Gray to Dk. Gray med. stiff, low-med. plas micaceous silty CLAY (Saturated) End of Boring 20' bgs				2.2		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 4.00 ft bgs  
Date of Measurement: 2/24/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-343

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/23/09  
Date Finished: 2/23/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown to Dk. Brown f-c SAND, w/ f-c ang. gravel (Dry)				0.0		
						1.5		
		Whitish Tan med. den clayey SILT (Dry)				2.4		
		Brown to Dk. Brown f-c SAND, w/ f-c ang. gravel (Dry)				2.5		
						0.0		
5		Brown to Dk. Brown f-c SAND, w/ f-c ang. gravel (Saturated)				0.0	▼	
		Whitish Tan med. den clayey SILT (Saturated)				0.0		
		POOR RECOVERY						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 2/23/2009  
Project No.: 41569313.00002



[illegible]

URS No. SB-343



# Soil Boring Log

Boring No.: SB-344

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/19/09  
Date Finished: 2/19/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Grayish Brown to Brownish Gray f-c SAND, w/ f-c ang. gravel (Moist)				0.0		
						0.0		
						0.0		
		Grayish purple soft, low plas. silty CLAY w/ intermittent white "sticky"/"gummy" substance (Wet)				0.0		
						0.0		
5		Brown f-c SAND, w/ f-c gravel, intermittent brick frags (Moist)				0.0	▼	
		Brown f-c SAND, w/ f-c gravel, intermittent brick frags (Saturated)				0.0		
						0.0		
		Brownish Gray clayey f-c SAND (Saturated)				0.0		
						0.0		
		Black f-c SAND, w/ f-c ang. gravel, intermittent whitish yellow specks (Saturated)				0.0		
						0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 2/19/2009  
Project No.: 41569313.00002

URS No. SB-344



# Soil Boring Log

Boring No.: SB-344

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/19/09  
Date Finished: 2/19/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
						43.7		
						7.6		
		Black sitly f-c SAND, w/ f-m ang. gravel (Saturated)				443		
						601		
		Grayish Red f-c SAND & ang. gravel & red brick like material (Dry)				70.1		
15		Gray coarse gravel (Very Little Recovery)				0.0		
						0.0		
						0.0		
						0.0		
						0.0		
						0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 2/19/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-344

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/19/09  
Date Finished: 2/19/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Black f-c SAND & f-c GRAVEL (Saturated)				34.9		
						69.8		
						45.1		
		Brown fibrous material				0.0		
		Brownish Gray med. stiff, low to med. plas. micaceous silty CLAY (Moist)				0.0		
25		End of Boring 25' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 2/19/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-345

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/23/09  
Date Finished: 2/23/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown to Dk. Brown f-c SAND, w/ f-c ang. gravel (Dry - Moist)				0.0		
						0.0		
						0.0		
						0.0		
		Brown to Dk. Brown f-c SAND, w/ f-c ang. gravel (Saturated)				0.0	▼	
5						0.0		
						0.0		
		Lt. Gray to Gray clayey SILT (Saturated)				0.0		
						4.3		
		Black f-c SAND, w/ f-c ang. gravel (Saturated)				0.0		
						37.5		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 4.00 ft bgs  
Date of Measurement: 2/23/2009  
Project No.: 41569313.00002

URS No. SB-345



# Soil Boring Log

Boring No.: SB-345

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/23/09  
Date Finished: 2/23/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Whitish Tan med. stiff clayey SILT (Saturated)				40.1		
		Black f-c SAND, w/ f-c ang. gravel (Saturated)				4.6		
		Black m-c SAND, w/ f-m ang. gravel, brick & glass frags (Saturated)				12.7		
		Black m-c SAND, w/ f-m ang. gravel, brick & glass frags, intermittent "shiny plastic like" frags (Saturated)				31.4		
		Black m-c SAND, w/ f-m ang. gravel, brick & glass frags (Saturated)				63.4		
15						139		
						0.0		
		Black m-c SAND, w/ f-m ang. gravel, brick & glass frags, some strings of fibrous material (Saturated)				0.0		
		Refusal 18.5' bgs				0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 4.00 ft bgs  
Date of Measurement: 2/23/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-346

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/19/09  
Date Finished: 2/19/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt				0.0		
		Grayish Black f-c SAND, w/ f-c ang. gravel (Dry)				0.0		
						0.0		
						0.0		
		Grayish Black f-c SAND, w/ f-c ang. gravel (Moist)				0.0		
		Grayish Black f-c SAND, w/ f-c ang. gravel (Wet)				1.5		
5		Dk. Brown to Black f-c SAND, w/ f-c ang. gravel, intermittent wire frags (Wet)				0.0	▼	
						0.0		
						0.0		
						5.1		
		Brown WOOD frags				29.1		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 5.80 ft bgs  
Date of Measurement: 2/19/2009  
Project No.: 41569313.00002

URS No. SB-346



[illegible]**URS**



# Soil Boring Log

**Boring No.: SB-347**  
**Monitoring Well No.:**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 2/19/09  
**Date Finished:** 2/19/09

**Survey Location:** N  
E

**Ground Elevation:** ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Grayish Black f-c SAND, w/ f-c ang. gravel (Dry)				3.9		
						2.6		
						4.7		
		Grayish Black f-c SAND, w/ f-c ang. gravel (Moist)				1.2		
						6.0		
5		Grayish Black f-c SAND, w/ f-c ang. gravel (Saturated)				5.2	▼	
						7.0		
		Black decayed WOOD debris (Saturated)				6.3		
		Red f-c BRICK frags (Saturated)				4.9		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Eichelbergers  
**Drilling Method:** Geoprobe 6620DT  
**Field Inspector:** JTB / MC

**Depth to Water:** 5.00 ft bgs  
**Date of Measurement:** 2/19/2009  
**Project No.:** 41569313.00002

URS No. SB-347



# Soil Boring Log

Boring No.: SB-347

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA






Date Started: 2/19/09  
Date Finished: 2/19/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Black f-c SAND & f-c ang. GRAVEL (Saturated)				14.6		
		Black clayey f-c SAND & f-c ang. GRAVEL (Saturated)				4.4		
						9.4		
		Dk. Brown clayey f-c SAND, w/ f-c ang. gravel, intermittent fissile "shale like" material (Saturated)				6.5		
		Gray med. stiff, low to med. plas. silty CLAY (Saturated)				8.2		
15		Gray med. stiff, low to med. plas. silty CLAY (Wet)				12.3		
		End of Boring 15' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 2/19/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-348

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/24/09  
Date Finished: 2/24/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Lt. Brown and Amber cation exchange beads (Dry - Moist) (Poor Recovery, Identification of material according to F. Jackson of Rohm & Haas)				4.2		
						6.8		
						8.2		
		Dk. Brown silty f-c SAND w/ f-m ang. gravel (Moist)				6.9		
5						7.2		
						13.3		
		Dk. Brown to Reddish Black f-c SAND, w/ f-c ang. gravel (Saturated)					▼	
		Black f-c SAND, w/ f-c ang. gravel (Saturated)						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 7.00 ft bgs  
Date of Measurement: 2/24/2009  
Project No.: 41569313.00002

URS No. SB-348



# Soil Boring Log

Boring No.: SB-348

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/24/09  
Date Finished: 2/24/09

Survey N  
Location: E

Ground  
Elevation: ft.

Inner Casing  
Elevation: ft.

Outer Casing  
Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15		End of Boring 12' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 7.00 ft bgs  
Date of Measurement: 2/24/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-349

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/24/09  
Date Finished: 2/24/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown silty f-c SAND, w/ f-m gravel (Dry to Moist)				64.2		
						287		
		Dk. Brown to Black f-m SAND, intermittent med. ang. gravel (Dry to Moist)				308		
						87.9		
5		Brown to Black f-m SAND, intermittent med. ang. gravel (Dry to Moist)				1374		
						774		
		Brown to Black f-m SAND, w/ some whitish tan lenses & intermittent med. ang. gravel (Dry to Moist)				184		
		Brown to Black f-m SAND, w/ some whitish tan lenses & intermittent med. ang. gravel (Dry to Moist)					▼	
		Brown to Black f-m SAND, w/ some whitish tan lenses & intermittent med. ang. gravel (Saturated)				69.3		
						6.9		
		VOID						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 7.00 ft bgs  
Date of Measurement: 2/24/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-349

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/24/09  
Date Finished: 2/24/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15		Black f-c SAND & f-c ang. gravel (Saturated)				6.9		
						2.7		
						6.4		
						3.9		
		Black f-c SAND & f-c ang. gravel (Saturated) POOR RECOVERY						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 7.00 ft bgs  
Date of Measurement: 2/24/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-349

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/24/09  
Date Finished: 2/24/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
25		Black f-c SAND & f-c ang. gravel (Saturated)				1.5		
						1.2		
						0.9		
						0.3		
						3.9		
						5.2		
		Black coarse SAND & f-m gravely, soft, low plas. CLAY (Saturated)				8.8		
		Black coarse SAND & f-m gravely, soft, low plas. CLAY, w/ decayed wood frags (Saturated)						
		Dk. Gray, med. stiff, med. plas. micaceous silty CLAY (Wet)				5.9		
		End of Boring 28' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 7.00 ft bgs  
Date of Measurement: 2/24/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-350

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/24/09  
Date Finished: 2/24/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown to Lt. Brown, silty f-c SAND, w/ f-m ang. gravel (Dry)				0.0		
		Brown to Dk. Brown f-c SAND, w/ f-m ang. gravel (Dry to Moist)				12.3		
						225		
						27.9		
						253		
5						3278		
						9999 OVER)		
						4626		
		End of Boring 8' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 7.00 ft bgs  
Date of Measurement: 2/24/2009  
Project No.: 41569313.00002

URS No. SB-350



# Soil Boring Log

**Boring No.: SB-351**  
**Monitoring Well No.:**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 2/25/09  
**Date Finished:** 2/25/09

**Survey** N  
**Location:** E

**Ground**  
**Elevation:** ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Gray and Red FILL (Building Rubble Concrete and Brick frags) Asphalt				0.0		
		Brown med. SAND, w/ f-m rounded gravel, some clay & trace concrete frags (Dry)				0.0		
						0.0		
						0.0		
		Red and White ion exchange beads, FILL				0.0		
		Brown med. SAND, w/ f-m rounded gravel, some clay & trace concrete frags (Saturated)				0.0		
5						0.0		
		Black f-c SAND, w/ f-c ang. gravel (Saturated)				0.0		
						0.0		
						0.0		
						0.0		
						0.0		
						0.0		
						0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Eichelbergers  
**Drilling Method:** Geoprobe 6620DT  
**Field Inspector:** JTB / MC

**Depth to Water:** 4.00 ft bgs  
**Date of Measurement:** 2/25/2009  
**Project No.:** 41569313.00002

URS No. SB-351



**Boring No.: SB-351**  
**Monitoring Well No.:**

URS No. SB-351

[illegible]



# Soil Boring Log

Boring No.: SB-352

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/25/09  
Date Finished: 2/25/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Gray and Red FILL, (crushed building rubble, brick & concrete)						
		Asphalt				0.0		
		Dk. Brown f-c micaceous SAND, some f-m rounded gravel (Dry)				0.0		
						0.0		
						0.0		
5		Dk. Brown f-c micaceous SAND, some f-m rounded gravel (Saturated)				0.0	▼	
		Black f-c ang. gravel (Saturated)						
		End of Boring 10' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 2/25/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-353

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/25/09  
Date Finished: 2/25/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown f-m SAND, some f-m round gravel, trace clay (Dry)				0.0		
		Black f-c SAND, w/ f-c ang gravel (Dry)						
		Brown, f-m SAND, some f-m rounded gravel (Dry)				0.0		
						0.0		
		Concrete (Dry)				0.0		
		Brown f-m SAND, some f-m rounded gravel (Moist)				0.0		
5						0.0		
		Lt. Gray to Gray silty, stiff, CLAY (Moist)				0.0		
		Lt. Gray to Gray silty, stiff, CLAY (Saturated)					▼	
		End of Boring 10' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 7.00 ft bgs  
Date of Measurement: 2/25/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-354

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/25/09  
Date Finished: 2/25/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Gray and Red FILL, (building rubble, concrete & brick frags)						
		Asphalt				0.0		
		Lt. Brown f-m SAND (Dry)				0.0		
		Dk. Brown f-m micaceous SAND, some f-m rounded gravel (Dry)				0.0		
						0.0		
		Gray, soft, silty CLAY (Moist)				0.0		
5		Gray, soft, silty CLAY (Saturated)					▼	
		Black f-c SAND, w/ f-c ang. gravel (Saturated)						
		End of Boring 8' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 2/25/2009  
Project No.: 41569313.00002

URS No. SB-354



# Soil Boring Log

Boring No.: SB-355

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/25/09  
Date Finished: 2/25/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						
		Brown - Dk. Brown silty micaceous f-c SAND, w. f-c ang. gravel (Dry, Moist)				0.0		
						0.0		
						0.0		
5		Lt. Brown silty f-c SAND, w/ f-c ang. gravel (Saturated)				0.0	▼	
		Dk. Brown silty f-c SAND, w/ f-c ang. gravel (Saturated)				0.0		
						0.0		
						0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 2/25/2009  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-355

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/25/09  
Date Finished: 2/25/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15		NO RECOVERY						
		Dk. Gray, med. stiff, med. plas. micaceous silty CLAY (Moist)						
		End of Boring 20' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 2/25/2009  
Project No.: 41569313.00002



**Boring No.: SB-356**  
**Monitoring Well No.:**

URS No. SB-356

[illegible]



**Boring No.: SB-357**  
**Monitoring Well No.:**

URS No. SB-357

Project: The Dow Chemical Company Philadelphia, PA				Date Started: 2/25/09 Date Finished: 2/25/09			
Survey Location: N E		Ground Elevation: ft.		Inner Casing Elevation: ft.		Outer Casing Elevation: ft.	
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC
		Asphalt				0.0	
		Dk. Brown silty f-c SAND, w/ f-c ang. rounded gravel (Dry)				0.0	
						0.0	
						0.0	
		Lt. Brown f-m SAND w/ f-m gravel (Dry)				0.0	
		Lt. Brown f-m SAND w/ f-m gravel (Moist)				0.0	
5		Brown f-c sandy, soft, low plas. CLAY (Saturated)					▼
		Brown silty, soft, low plas. CLAY (Saturated)					
		Gray, med. stiff, low - med. plas. micaceous silty CLAY (Saturated)					
End of Boring 10' bgs							
Notes: ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected bgs = below ground surface      N/W = No Well Installed      ▼ = water level at completion							
Driller: Eichelbergers		Depth to Water: 5.00 ft bgs					
Drilling Method: Geoprobe 6620DT		Date of Measurement: 2/25/2009					
Field Inspector: JTB / MC		Project No.: 41569313.00002					



# Soil Boring Log

Boring No.: SB-358

Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/25/09  
Date Finished: 2/25/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt/Gravel						
		Brown f-m SAND, some f-m ang. gravel, trace clay (Dry)				0.0		
						0.0		
						0.0		
		Black f-c SAND, w/ f-m ang. gravel (Dry to Wet)				0.0		
						0.0		
5						0.0		
		Black f-c SAND, w/ f-m ang. gravel (Saturated)				0.0		
		Gray silty soft CLAY, some f-m ang. gravel (Saturated)				0.0		
		End of Boring 8' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 6.50 ft bgs  
Date of Measurement: 2/25/2009  
Project No.: 41569313.00002



**Boring No.: SB-359**  
**Monitoring Well No.: N/W**

URS No. SB-359

[illegible]



# Soil Boring Log

Boring No.: SB-362  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 8/3/12  
Date Finished: 8/3/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt and crushed concrete.		(a)				N/W
5		Dark Brown GRAVELLY SAND, medium to coarse sand, dry becoming wet towards base.						
		Black GRAVEL with SAND, medium gravel (saturated).					▼	
10		End of Boring 10' bgs						
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 6.00 ft bgs  
Date of Measurement: 8/3/2012  
Project No.: 41569313.00002



# Soil Boring Log

**Boring No.: SB-365**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 9/10/12  
**Date Finished:** 9/10/12

**Survey** N  
**Location:** E

**Ground**  
**Elevation:** ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		FILL with 1.5' of concrete at base.				0		N/W
5		Black GRAVELLY SAND, coarse sand, with brick fragments (saturated).			(a)	2.9	▼	
		Black and White GRAVEL with SAND, medium rounded gravel.				2.4		
10		End of Boring at 10' bgs.				2		
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Zebra  
**Drilling Method:** Geoprobe 6620DT  
**Field Inspector:** GSC

**Depth to Water:** 4.50 ft bgs  
**Date of Measurement:** 9/10/2012  
**Project No.:** 41569313.00002



# Soil Boring Log

**Boring No.: SB-367**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 7/30/12  
**Date Finished:** 7/30/12

**Survey Location:** N  
E

**Ground Elevation:** ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt and crushed concrete.				26.7		
		Black GRAVEL with CLAY, strong odor.		(a)		42.7		N/W
						128.7		
		Black to Grayish Brown SILTY CLAY, staining at 2' bgs.		(a)		357.8		
						354.1		
		Dark Brown SILTY CLAY with GRAVEL (saturated).				250.6	▼	
						14.1		
						11.2		
						4.6		
5		Black SANDY GRAVEL.				10.7		
						9.6		
		End of Boring at 6' bgs.				0.4		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 3.00 ft bgs  
Date of Measurement: 7/30/2012  
Project No.: 41569313.00002

URS No. SB-367



# Soil Boring Log

**Boring No.: SB-368**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 9/12/12  
**Date Finished:** 9/12/12

**Survey** N  
**Location:** E

**Ground  
Elevation:**            **ft.**

**Inner Casing**  
**Elevation:**                **ft.**

**Outer Casing**  
**Elevation:**            **ft.**

[illegible]

Notes:

ppm = parts per million

bgs = below ground surface

bpf = blows per foot

N/W = No Well Installed

(a) = Analytical sample collected

 = water level at completion

Driller: Zebra

Drilling Method: Geoprobe 6620DT

Field Inspector: GSC

Depth to Water:                      ft bgs

Date of Measurement: \_\_\_\_\_

Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-369  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 9/11/12  
Date Finished: 9/11/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
5		Fill (saturated).						N/W
		Concrete.						
10		Black GRAVEL and SAND: medium rounded gravel, medium to coarse sand (saturated).	(a)			1.6	▼	
		Gray CLAY, hard.						
15		End of Boring at 14.5' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 9.50 ft bgs  
Date of Measurement: 9/11/2012  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-371  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 9/11/12  
Date Finished: 9/11/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
5		Fill, brick fragments and concrete.						N/W
		Concrete.						
10		Black GRAVEL, coarse.				2.4		
		Black to Light Gray GRAVELLY SAND, coarse sand, some coarse gravel (saturated).	(a)			9.6		
15		Refusal at 13' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 9.00 ft bgs  
Date of Measurement: 9/11/2012  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-373  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 9/11/12  
Date Finished: 9/11/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Fill, asphalt, brick fragments.						
		Concrete.						N/W
		White GRAVEL, coarse.						
		Black SILTY SAND, fine to coarse sand, trace gravel.				4.7		
		White GRAVEL, coarse.						
		Black SILTY SAND, fine to coarse sand, trace gravel (saturated at 4.5' bgs.).		(a)		1.7		
5		End of Boring at 5' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 4.50 ft bgs  
Date of Measurement: 9/11/2012  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-374  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 7/30/12  
Date Finished: 7/30/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Concrete.						
		Dark Brown to Black SILTY CLAY, some gravel (saturated at 3' bgs.).		(a)				N/W
				(a)		2.4		
						2.7	▼	
5								
		White SILTY CLAY, hard, low plasticity.				240		
		End of Boring at 8' bgs.				243		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 3.00 ft bgs  
Date of Measurement: 7/30/2012  
Project No.: 41569313.00002

URS No. SB-374



# Soil Boring Log

Boring No.: SB-375  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 9/11/12  
Date Finished: 9/11/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
5		Fill.						N/W
		Concrete.						
10		Brown Fill, sand, silt, and clay.						
		Concrete.						
		Black GRAVELLY SAND, medium to coarse sand (moist to saturated).	(a)					
15		End of Boring at 15' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 11.00 ft bgs  
Date of Measurement: 9/11/2012  
Project No.: 41569313.00002

URS No. SB-375



# Soil Boring Log

**Boring No.: SB-378**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 7/30/12  
**Date Finished:** 7/30/12

**Survey Location:** N  
E

**Ground Elevation:** ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Fill, gravelly sand, coarse sand, with concrete.						
		Fill, gray gravel.		(a)				N/W
		Brown to Black SAND, medium to coarse.				0.1		
		Black SAND, medium to coarse (wet at 3' bgs.).		(a)		0.2	▼	
5						1.3		
						14.3		
						12.3		
						14.5		
						16.7		
						18.9		
10		Red CLAY, hard.				19.7		
		End of Boring at 10' bgs.						
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 3.00 ft bgs  
Date of Measurement: 7/30/2012  
Project No.: 41569313.00002

URS No. SB-378



# Soil Boring Log

Boring No.: SB-379  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 9/11/12  
Date Finished: 9/11/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
5		Fill.						N/W
		Concrete.						
		Black SILTY GRAVEL, fine (saturated).						
10		Black SANDY GRAVEL, medium to coarse gravel (saturated).	(a)					
		End of Boring at 13' bgs.						
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 9.00 ft bgs  
Date of Measurement: 9/11/2012  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-381  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 7/30/12  
Date Finished: 7/30/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Fill, asphalt and concrete fragments.						
		Brown to Light Brown SAND with GRAVEL, medium sand.						
		Black to Dark Brown SILTY SAND with GRAVEL.	(a)					N/W
		Black SILTY SAND, some wood fragments.	(a)					
5								
		End of Boring at 8' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: ft bgs  
Date of Measurement:  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-382  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 8/3/12  
Date Finished: 8/3/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Crushed concrete.						
		Dark Brown GRAVELLY SAND, medium to coarse sand.		(a)				N/W
		White GRAVEL, medium to coarse.						
		Dark Brown SAND and GRAVEL, medium to coarse sand and gravel.						
5		Black SAND, coarse.						
		Black to Dark Brown GRAVELLY SAND, fine to coarse sand (dry).		(a)				
		White GRAVEL, fine to medium (saturated).						
		Black GRAVEL, fine to coarse (saturated).						
10		End of Boring at 10' bgs.						
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 7.00 ft bgs  
Date of Measurement: 8/3/2012  
Project No.: 41569313.00002



# Soil Boring Log

**Boring No.: SB-383**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 8/3/12  
**Date Finished:** 8/3/12

**Survey Location:** N  
E

**Ground Elevation:** ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Fill, asphalt, crushed concrete and bricks.						
		Dark Brown GRAVELLY SAND, medium to coarse sand. White GRAVEL with SAND, medium sand. Black to Dark Brown GRAVELLY SAND, medium to coarse sand.		(a)				N/W
5		Tan SAND with GRAVEL, medium sand.						
		color change to brown						
		Black SAND, coarse.		(a)				
		Black GRAVELLY SAND, coarse sand (saturated).				5.6		
		Black CLAY with GRAVEL, coarse (saturated).				211.3		
10		End of Boring at 10' bgs.						
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Zebra  
**Drilling Method:** Geoprobe 6620DT  
**Field Inspector:** GSC

**Depth to Water:** 8.50 ft bgs  
**Date of Measurement:** 8/3/2012  
**Project No.:** 41569313.00002



# Soil Boring Log

Boring No.: SB-384  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 8/3/12  
Date Finished: 8/3/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Concrete layered between asphalt.						
		Dark Gray GRAVELLY SAND, medium to coarse sand, coarse gravel.						N/W
		Concrete.						
		Brick fragments.						
		Dark Brown SAND, medium to coarse sand.						
5		White SAND, fine.		(a)				
		Brown GRAVELLY SAND, medium to coarse sand, coarse gravel.		(a)				
		Asphalt				2.7		
		Dark Reddish Brown GRAVEL, medium to coarse (saturated).						
10		End of Boring at 10' bgs.						
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 7.25 ft bgs  
Date of Measurement: 8/3/2012  
Project No.: 41569313.00002



# Soil Boring Log

**Boring No.: SB-385**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 7/30/12  
**Date Finished:** 7/30/12

**Survey** N  
**Location:** E

**Ground**  
**Elevation:** ft.

**Inner Casing**  
**Elevation:** ft.

**Outer Casing**  
**Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt, brick, and concrete fragments.						
		White to Brown GRAVELLY SAND, medium to coarse sand, coarse gravel.	(a)					N/W
		Black to Dark Brown SAND, medium to coarse.						
		White to Brown GRAVELLY SAND, medium to coarse sand, coarse gravel.	(a)					
5		Black to Dark Brown SAND, medium to coarse sand.					▼	
		End of Boring at 8' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Zebra  
**Drilling Method:** Geoprobe 6620DT  
**Field Inspector:** GSC

**Depth to Water:** 5.00 ft bgs  
**Date of Measurement:** 7/30/2012  
**Project No.:** 41569313.00002

URS No. SB-385



**Boring No.: SB-386**  
**Monitoring Well No.: N/W**

URS No. SB-386

[illegible]



# Soil Boring Log

**Boring No.: SB-387**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 7/31/12  
**Date Finished:** 7/31/12

**Survey Location:** N  
E

**Ground Elevation:** ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt. Crushed Concrete.		(a)				N/W
5		Brown to Black SAND, medium to coarse, little gravel, little silt.		(a)				
		Brick Fragments. Black SAND, coarse, some gravel, trace silt (saturated at 7.5' bgs.).						
10		Black to Gray CLAY, little silt, trace fine sand, wood/organic fragments.						
		End of Boring at 10' bgs.						
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Zebra  
**Drilling Method:** Geoprobe 6620DT  
**Field Inspector:** GSC

**Depth to Water:** 7.50 ft bgs  
**Date of Measurement:** 7/31/2012  
**Project No.:** 41569313.00002

URS No. SB-387



# Soil Boring Log

Boring No.: SB-388  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 8/3/12  
Date Finished: 8/3/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt.						
		Light Brown GRAVELLY SAND, fine to medium.		(a)				N/W
		Brown SAND, fine to medium.						
5		Dark Brown GRAVELLY SAND, medium to coarse sand, dry becoming wet towards base.		(a)				
		Brown SILTY CLAY, saturated at 8' bgs.						
		Black GRAVELLY SAND, coarse sand, saturated.						
10		End of Boring at 10' bgs.						
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra

Depth to Water: 8.00 ft bgs

Drilling Method: Geoprobe 6620DT

Date of Measurement: 8/3/2012

Field Inspector: GSC

Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-389  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 8/3/12  
Date Finished: 8/3/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt and Concrete.		(a)				N/W
		Brown SAND, medium.						
5		Brown SAND, fine to medium.		(a)				
		Gray to White SANDY GRAVEL, fine to coarse (saturated at 7' bgs.)						
		Black SANDY GRAVEL, fine to medium (saturated).						
10		End of Boring at 10' bgs.						
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 7.00 ft bgs  
Date of Measurement: 8/3/2012  
Project No.: 41569313.00002



# Soil Boring Log

**Boring No.: SB-390**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 8/3/12  
**Date Finished:** 8/3/12

**Survey Location:** N  
E

**Ground Elevation:** ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt, Brick, and Concrete.		(a)				N/W
		Light Brown SILTY SAND, fine to coarse sand, some gravel.						
		Dark Brown GRAVELLY SAND, medium to coarse sand, some crushed brick.						
5		Crushed Brick.						
		Dark Brown GRAVELLY SAND, medium to coarse sand (moist).		(a)				
		Black SANDY GRAVEL (saturated at 8' bgs.).						
10		End of Boring at 10' bgs.						
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Zebra

**Depth to Water:** 8.00 ft bgs

**Drilling Method:** Geoprobe 6620DT

**Date of Measurement:** 8/3/2012

**Field Inspector:** GSC

**Project No.:** 41569313.00002



# Soil Boring Log

Boring No.: SB-391  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 8/3/12  
Date Finished: 8/3/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt, Brick, and Concrete.		(a)				N/W
		Brown SAND, medium.						
5		Dark Brown GRAVELLY SAND, fine to coarse sand, increasing moisture with depth.		(a)				
		Dark Brown SILT (saturated at 8' bgs.).						
		NO RECOVERY.						
10		End of Boring at 10' bgs.						
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra

Drilling Method: Geoprobe 6620DT

Field Inspector: GSC

Depth to Water: 8.00 ft bgs

Date of Measurement: 8/3/2012

Project No.: 41569313.00002



# Soil Boring Log

**Boring No.: SB-392**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 7/31/12  
**Date Finished:** 7/31/12

**Survey Location:** N  
E

**Ground Elevation:** ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Crushed Asphalt, Concrete, and Bricks.		(a)				N/W
		Brown SANDY SILT.						
5		Gray SAND, fine to medium, with brick fragments.						
		Brown to Gray CLAY with brick fragments (moist).						
		Black GRAVELLY SAND, medium to coarse sand (moist becoming saturated at 8.5' bgs.).		(a)		27.3	▼	
10		End of Boring at 10' bgs.						
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Zebra  
**Drilling Method:** Geoprobe 6620DT  
**Field Inspector:** GSC

**Depth to Water:** 8.50 ft bgs  
**Date of Measurement:** 7/31/2012  
**Project No.:** 41569313.00002

URS No. SB-392



# Soil Boring Log

Boring No.: SB-393  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 7/31/12  
Date Finished: 7/31/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Crushed Asphalt, Concrete, and Bricks.		(a)				N/W
		Brown SAND, fine to medium, micaceous. Pink Crushed Rock.						
5		Brown SAND with GRAVEL, fine to medium sand.						
		Dark Brown SANDY SILT with GRAVEL, trace clay (saturated at 9.5' bgs.).		(a)				
10		End of Boring at 10' bgs.						
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 9.50 ft bgs  
Date of Measurement: 7/31/2012  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-394  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 7/31/12  
Date Finished: 7/31/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Concrete, Asphalt, and Brick.						
		Dark Brown to Black GRAVELLY SAND, medium to coarse sand.		(a)				N/W
5		Brick fragments. saturated at 9' bgs.		(a)				
10		End of Boring at 10' bgs.						
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 9.00 ft bgs  
Date of Measurement: 7/31/2012  
Project No.: 41569313.00002

URS No. SB-394



# Soil Boring Log

Boring No.: SB-395  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 9/12/12  
Date Finished: 9/12/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt, Brick Fragments, Crushed Concrete.						
				(a)				N/W
5		Dark Brown to Black SILTY SAND, fine to medium sand, some coarse gravel.						
		Brown CLAY, soft (wet).				0.1		
						0.1		
		Brown to Black SAND, coarse, white clay lense, (dry).				0.1		
10				(a)		160		
		Black GRAVELLY SAND, coarse sand.				7.2		
						170		
						2.5		
						3.6		
						2.4		
15		End of Boring at 15' bgs.				1.5		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 5.50 ft bgs  
Date of Measurement: 9/12/2012  
Project No.: 41569313.00002



# Soil Boring Log

**Boring No.: SB-396**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 7/31/12  
**Date Finished:** 7/31/12

**Survey Location:** N  
E

**Ground Elevation:** ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt.						
		Sand and Gravel Roadbase with brick and concrete.		(a)				N/W
		Miscellaneous Fill with black to brown medium to coarse sand, little silt, trace clay.						
5								
		Brown SILTY CLAY, little fine to medium SAND.		(a)				
		Black SAND, medium to coarse, little SILT, trace gravel.						
		Brown SAND, medium, little SILT, little GRAVEL.						
10						3.2	▼	
		Gray to Black SANDY CLAY, little SILT, wood and organics.						
15								
		End of Boring at 15' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 10.00 ft bgs  
Date of Measurement: 7/31/2012  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-397  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 7/31/12  
Date Finished: 7/31/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt.						
		Gray SAND, coarse, some gravel with crushed brick and concrete.		(a)				N/W
		Brown to Black SAND, medium to coarse, little silt, little gravel, brick and wood fragments.						
5				(a)				
10						71		
						79		
15		End of Boring at 15' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: ft bgs  
Date of Measurement:  
Project No.: 41569313.00002

URS No. SB-397



**Boring No.: SB-398**  
**Monitoring Well No.: N/W**

URS No. SB-398

Project: The Dow Chemical Company Philadelphia, PA				Date Started: 9/12/12 Date Finished: 9/12/12						
Survey Location: N E		Ground Elevation: ft.		Inner Casing Elevation: ft.			Outer Casing Elevation: ft.			
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION			LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt and concrete.								
		Brown CLAY, some sand, trace gravel.				(a)				
5		Dark Brown to Black GRAVELLY SAND, fine to coarse sand, some coarse gravel (saturated).								
		Brown CLAY, some fine to coarse sand and gravel.								
10		End of Boring at 10' bgs.								
15										
Notes: ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected bgs = below ground surface      N/W = No Well Installed      ▼ = water level at completion										
Driller: Zebra Drilling Method: Geoprobe 6620DT Field Inspector: GSC					Depth to Water: 5.00 ft bgs Date of Measurement: 9/12/2012 Project No.: 41569313.00002					



# Soil Boring Log

**Boring No.: SB-399**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 9/12/12  
**Date Finished:** 9/12/12

**Survey Location:** N  
E

**Ground Elevation:** ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Fill.						N/W
5		Brown to Dark Brown GRAVELLY SAND, fine to coarse sand, some silt.		(a)		2.5		
		Black GRAVELLY SAND (saturated at 7' bgs.)				26.3	▼	
						162.4		
						17.2		
10		End of Boring at 10' bgs.				10.7		
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Zebra  
**Drilling Method:** Geoprobe 6620DT  
**Field Inspector:** GSC

**Depth to Water:** 7.00 ft bgs  
**Date of Measurement:** 9/12/2012  
**Project No.:** 41569313.00002



# Soil Boring Log

Boring No.: SB-400  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 9/12/12  
Date Finished: 9/12/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Fill.						
		Concrete.						
5		Black SILTY SAND, medium to coarse sand, trace medium gravel (saturated at 8' bgs.).				2.6 20.6		
			(a)			1130		
						1160	▼	
						896		
10		End of Boring at 10' bgs.				1210		
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 8.00 ft bgs  
Date of Measurement: 9/12/2012  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-401  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

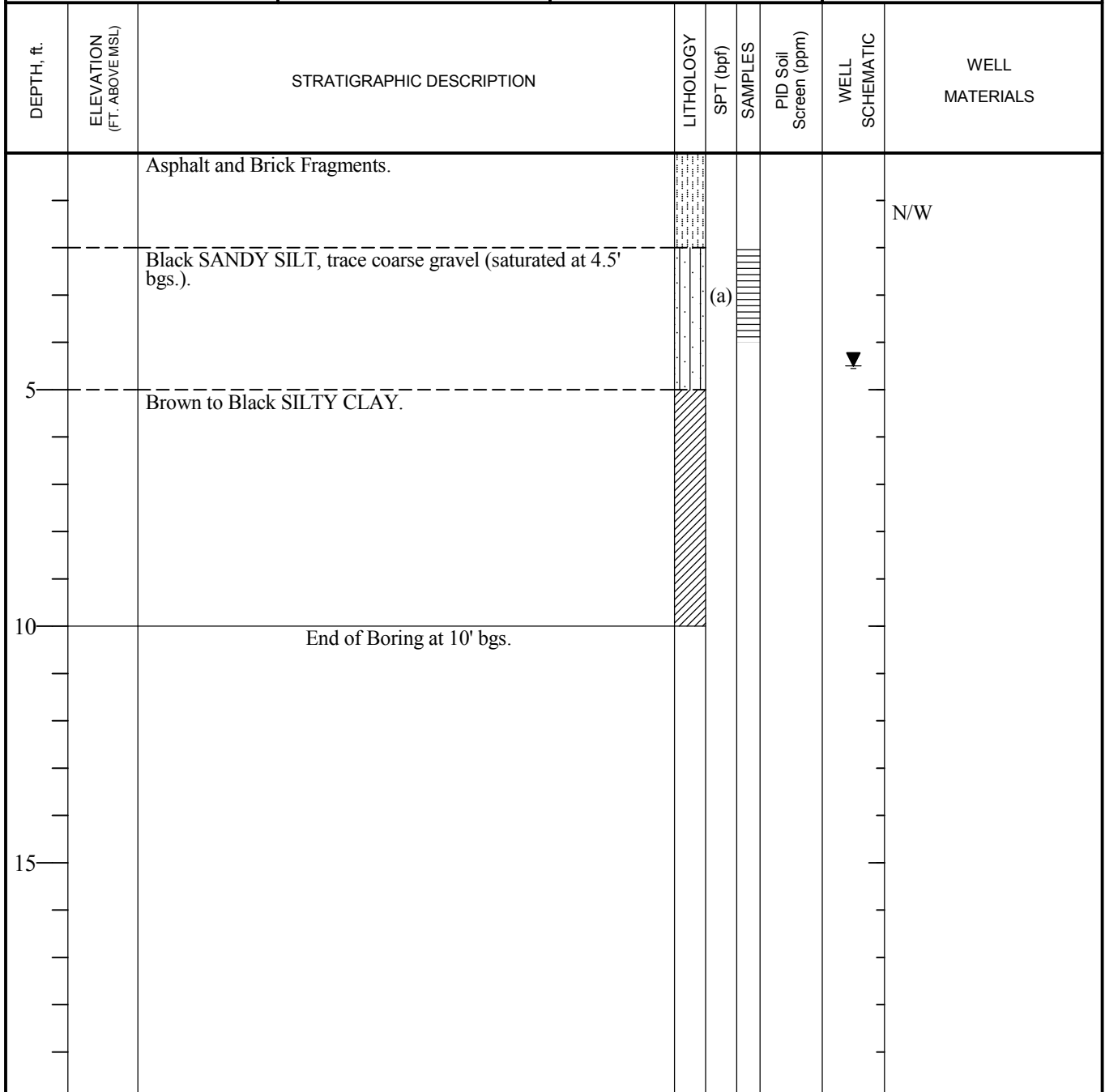
Date Started: 9/12/12  
Date Finished: 9/12/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.



## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 4.50 ft bgs  
Date of Measurement: 9/12/2012  
Project No.: 41569313.00002

URS No. SB-401



# Soil Boring Log

**Boring No.: SB-402**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 9/12/12  
**Date Finished:** 9/12/12

**Survey** N  
**Location:** E

**Ground  
Elevation:**            **ft.**

**Inner Casing**  
**Elevation:**                **ft.**

**Outer Casing**  
**Elevation:**            **ft.**

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt and crushed concrete.						
		Gray to Brown CLAY, some sand and gravel.		(a)		2.1		N/W
				(a)		0.7		
5		Brown GRAVELLY SAND (saturated).				17.3	▼	
		Black CLAY.				0.1		
		Micaceous sand, wood, fabric (fill).				7.3		
		Black SANDY SILT (saturated).				2.1		
10		End of Boring at 10' bgs.				3.1		
15								

Notes:

ppm = parts per million

bgs = below ground surface

bpf = blows per foot

N/W = No Well Installed

(a) = Analytical sample collected

 = water level at completion

Driller: Zebra

Drilling Method: Geoprobe 6620DT

Field Inspector: GSC

Depth to Water: 5.50 ft bgs

Date of Measurement: 9/12/2012

Project No.: 41569313.00002



**Boring No.: SB-403**  
**Monitoring Well No.: N/W**

URS No. SB-403

<b>Project:</b> The Dow Chemical Company Philadelphia, PA				<b>Date Started:</b> 9/12/12 <b>Date Finished:</b> 9/12/12						
<b>Survey Location:</b>		N E	<b>Ground Elevation:</b>	ft.	<b>Inner Casing Elevation:</b>	ft.	<b>Outer Casing Elevation:</b> ft.			
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION			LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt. Black GRAVELLY SAND, medium to coarse sand.			[Pattern]	(a)	[Pattern]	126.7	N/W	
		color change to brown.						113.1		
		Orange SAND, fine to coarse.						89.3		
5		Black GRAVELLY SAND, medium to coarse sand (saturated at 7' bgs.).			[Pattern]	(a)	[Pattern]	17.3		
								6.1		
								7.3		▼
								2.1		
								1.9		
10		End of Boring at 10' bgs.						3.1		
15										
Notes: ppm = parts per million      bpf = blows per foot      (a) = Analytical sample collected bgs = below ground surface    N/W = No Well Installed      ▼ = water level at completion										
Driller:		Zebra			Depth to Water:		7.00 ft bgs			
Drilling Method:		Geoprobe 6620DT			Date of Measurement:		9/12/2012			
Field Inspector:		GSC			Project No.:		41569313.00002			



# Soil Boring Log

Boring No.: SB-404  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 9/12/12  
Date Finished: 9/12/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt.						
		Light Brown GRAVELLY SAND, medium to coarse.		(a)				N/W
		Black SAND, medium to coarse, some gravel.						
5		Brown SILTY SAND, coarse sand, trace gravel (saturated at 7' bgs.).		(a)				
		Brick fragments, some sand (saturated).						
10		End of Boring at 10' bgs.						
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 7.00 ft bgs  
Date of Measurement: 9/12/2012  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-405  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 9/12/12  
Date Finished: 9/12/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
0		Asphalt, Wood, Crushed Concrete and Brick.				0.1		N/W
1						0.1		
2						2.5		
3						0.0		
4						0.1		
5		Dark Brown SANDY SILT, some coarse GRAVEL (saturated at 8' bgs.).	(a)			6.5		
6						124.1		
7						163	▼	
8						173		
9						551		
10		End of Boring at 10' bgs.						
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 8.00 ft bgs  
Date of Measurement: 9/12/2012  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-406  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 9/11/12  
Date Finished: 9/11/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
0		Fill.						
5		Concrete.						
		Black GRAVELLY SAND, medium to coarse (saturated).						
10		End of Boring at 9' bgs.						
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 4.00 ft bgs  
Date of Measurement: 9/11/2012  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-407  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 9/11/12  
Date Finished: 9/11/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
0		Fill.						
1								
2								
3								
4		Concrete.						
5		Red and Black GRAVELLY SAND (saturated).						
6								
7								
8								
9		End of Boring at 9' bgs.						
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 4.00 ft bgs  
Date of Measurement: 9/11/2012  
Project No.: 41569313.00002

URS No. SB-407



# Soil Boring Log

Boring No.: SB-408  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 9/11/12  
Date Finished: 9/11/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Fill.						
		Concrete.						
		Dark Brown to Black GRAVELLY SAND, medium to coarse (saturated at 5' bgs.).						
5		End of Boring at 5' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 9/11/2012  
Project No.: 41569313.00002

URS No. SB-408



# Soil Boring Log

Boring No.: SB-409  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 9/11/12  
Date Finished: 9/11/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Fill.						
		Concrete.						
		Dark Brown to Black GRAVELLY SAND, medium to coarse (saturated at 5' bgs.).						
5		End of Boring at 5' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 9/11/2012  
Project No.: 41569313.00002

URS No. SB-409



# Soil Boring Log

Boring No.: SB-410  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 8/1/12  
Date Finished: 8/1/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
5		Fill and Concrete.						
		Black SANDY GRAVEL (saturated).						
		Brown to Black CLAY.						
10		End of Boring at 10' bgs.						
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 8/1/2012  
Project No.: 41569313.00002



# Soil Boring Log

**Boring No.: SB-411**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 8/6/12  
**Date Finished:** 8/6/12

**Survey Location:** N  
E

**Ground Elevation:** ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
0		Asphalt, Concrete, Brick.						
1				(a)				N/W
2								
3		Dark Brown GRAVELLY SAND, fine to coarse sand (moist).						
4								
5		Brown to Light Brown SAND, fine to medium (dry).						
6								
7		Dark Brown to Black SANDY GRAVEL, fine to coarse gravel (saturated at 7' bgs.).					▼	
8								
9								
10		End of Boring at 10' bgs.						
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Zebra  
**Drilling Method:** Geoprobe 6620DT  
**Field Inspector:** GSC

**Depth to Water:** 7.00 ft bgs  
**Date of Measurement:** 8/6/2012  
**Project No.:** 41569313.00002



# Soil Boring Log

Boring No.: SB-412  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 8/6/12  
Date Finished: 8/6/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt, Concrete, and Brick Fragments.						
				(a)				N/W
		Dark Brown GRAVELLY SAND, some SANDY GRAVEL, dry becoming saturated at 4.75' bgs.						
5		End of Boring at 5' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 4.75 ft bgs  
Date of Measurement: 8/6/2012  
Project No.: 41569313.00002

URS No. SB-412



# Soil Boring Log

**Boring No.: SB-413**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 8/6/12  
**Date Finished:** 8/6/12

**Survey Location:** N  
E

**Ground Elevation:** ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt and Crushed Brick.						
		Dark Brown GRAVELLY SAND, fine to coarse sand, some crushed brick and coarse gravel.		(a)				N/W
		White GRAVEL with SAND, coarse gravel, fine to coarse sand.						
		Dark Brown GRAVELLY SAND, fine to coarse sand, some coarse GRAVEL, dry becoming saturated near base.		(a)				
5		End of Boring at 5' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

**Driller:** Zebra  
**Drilling Method:** Geoprobe 6620DT  
**Field Inspector:** GSC

**Depth to Water:** 4.00 ft bgs  
**Date of Measurement:** 8/6/2012  
**Project No.:** 41569313.00002

URS No. SB-413



# Soil Boring Log

Boring No.: SB-415  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 8/6/12  
Date Finished: 8/6/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt, Brick, Concrete.		(a)				N/W
5		Orange to Red GRAVELLY SAND, fine to coarse sand, dry becoming moist towards base.				0.8	▼	
		Black to Red GRAVELLY SAND, fine to coarse sand, wood fragments (saturated at 5' bgs.).				1.6		
						2.3		
						2.5		
10		End of Boring at 10' bgs.						
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 8/6/2012  
Project No.: 41569313.00002



# Soil Boring Log

**Boring No.: SB-416**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA



**Date Started:** 8/6/12  
**Date Finished:** 8/6/12

**Survey** N  
**Location:** E

**Ground  
Elevation:**                **ft.**

**Inner Casing**  
**Elevation:**            **ft.**

Outer Casing  
Elevation:           ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt. Dark Brown GRAVELLY SAND.  color change to brown.  color change to reddish brown.  color change to yellowish brown (moist). Black SANDY GRAVEL with wood fragments (saturated at 5.5' bgs.).		(a)		0.1 9.0 6.3 1.7 5.3 81.6 9.6 6.3 0.7 0.0		N/W
5								
10		End of Boring at 10' bgs.						
15								

Notes:

ppm = parts per million

bgs = below ground surface

bpf = blows per foot

N/W = No Well Installed

(a) = Analytical sample collected

 = water level at completion

Driller: Zebra

Drilling Method: Geoprobe 6620DT

Field Inspector: GSC

Depth to Water: 5.50 ft bgs

Date of Measurement: 8/6/2012

Project No.: 41569313.00002



# Soil Boring Log

**Boring No.: SB-417**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 8/1/12  
**Date Finished:** 8/1/12

**Survey** N  
**Location:** E

**Ground  
Elevation:**                **ft.**

**Inner Casing**  
**Elevation:**            **ft.**

**Outer Casing**  
**Elevation:**            **ft.**

[illegible]

Notes:

ppm = parts per million

bgs = below ground surface

bpf = blows per foot

N/W = No Well Installed

(a) = Analytical sample collected

 = water level at completion

Driller: Zebra

Drilling Method: Geoprobe 6620DT

Field Inspector: GSC

Depth to Water: 5.50 ft bgs

Date of Measurement: 8/1/2012

Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-418  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

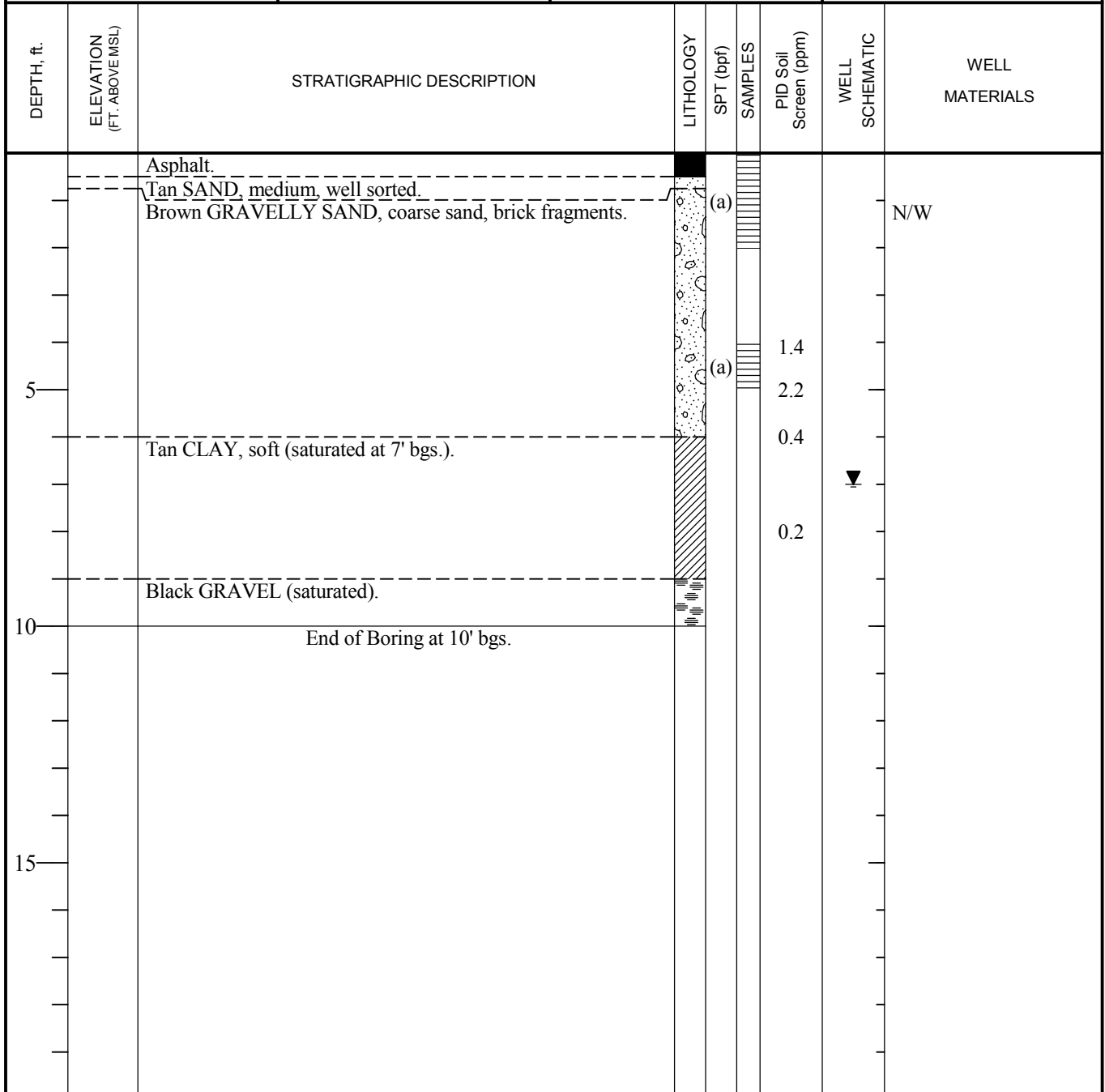
Date Started: 8/1/12  
Date Finished: 8/1/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.



## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 7.00 ft bgs  
Date of Measurement: 8/1/2012  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-419  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

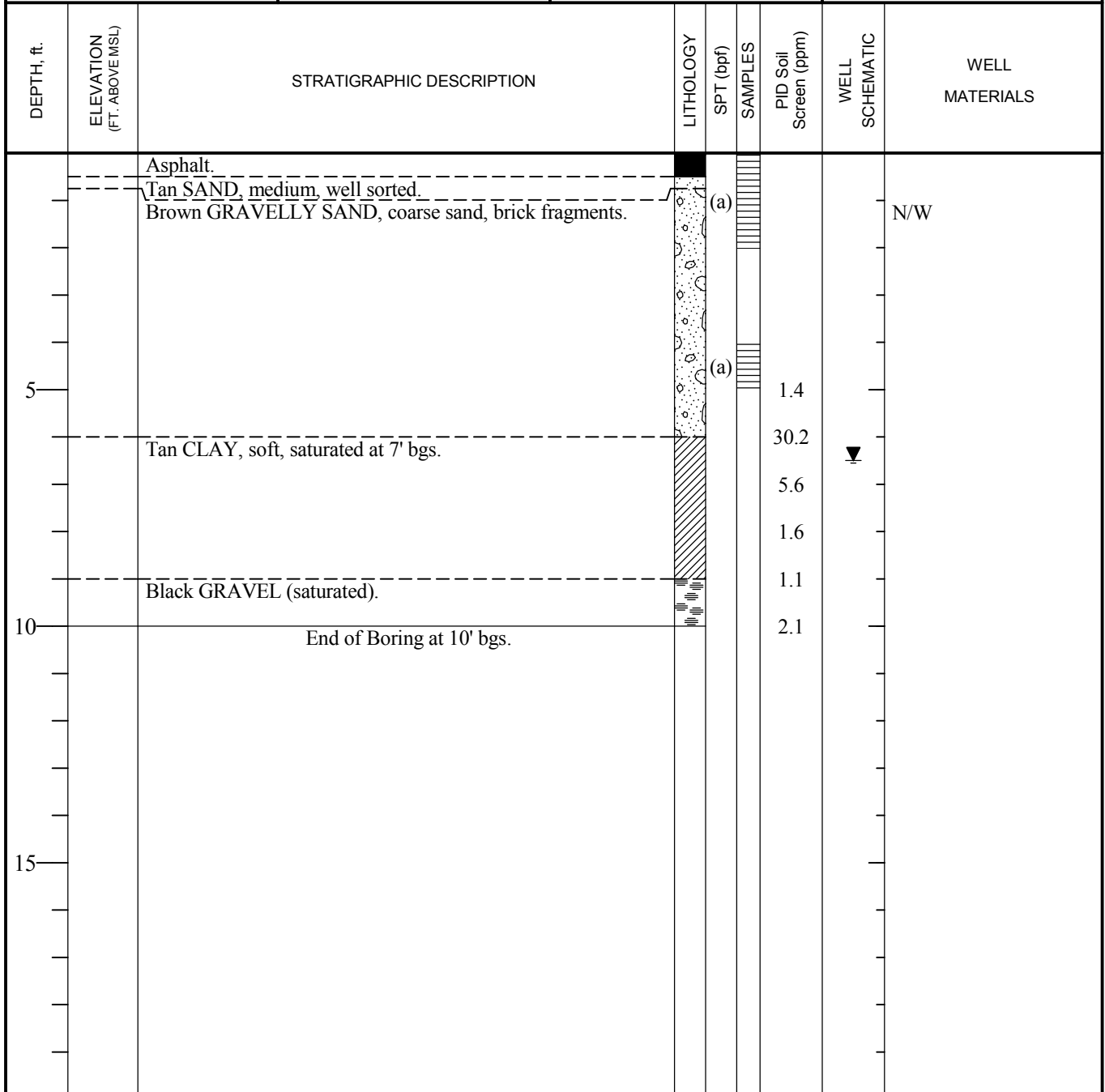
Date Started: 8/1/12  
Date Finished: 8/1/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.



## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 6.50 ft bgs  
Date of Measurement: 8/1/2012  
Project No.: 41569313.00002



# Soil Boring Log

**Boring No.: SB-420**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 8/1/12  
**Date Finished:** 8/1/12

**Survey** N  
**Location:** E

**Ground  
Elevation:**                **ft.**

**Inner Casing**  
**Elevation:**            **ft.**

Outer Casing  
Elevation:           ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Crushed Concrete and Brick.						
		Dark Brown GRAVELLY SAND, coarse sand.		(a)				N/W
		Black GRAVELLY SAND with CLAY.						
5						0.3		
						1.4		
		Black GRAVELLY SAND, coarse sand, brick fragments at 6' bgs (wet).		(a)		5.4		
		Black SANDY GRAVEL (saturated at 7' bgs.).				812.4	▼	
						1.4		
						0.8		
10		End of Boring at 10' bgs.				1.3		
15								

Notes:

ppm = parts per million

bgs = below ground surface

bpf = blows per foot

N/W = No Well Installed

(a) = Analytical sample collected

 = water level at completion

Driller: Zebra

Drilling Method: Geoprobe 6620DT

Field Inspector: GSC

Depth to Water: 7.00 ft bgs

Date of Measurement: 8/1/2012

Project No.: 41569313.00002



# Soil Boring Log

**Boring No.: SB-421**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 8/1/12  
**Date Finished:** 8/1/12

**Survey** N  
**Location:** E

**Ground  
Elevation:**                **ft.**

**Inner Casing**  
**Elevation:**            **ft.**

**Outer Casing**  
**Elevation:**            **ft.**

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt, Crushed Concrete and Brick.						
		Dark Brown to Brown GRAVELLY SAND, coarse sand, brick and quartzite fragments.	(a)					N/W
		Black to Dark Brown GRAVELLY SAND, coarse sand, coal-like fragments.						
5		Dark Brown CLAY with SAND.	(a)					
		Black SANDY GRAVEL (saturated at 8' bgs.).						
		NO RECOVERY.						
10		End of Boring at 10' bgs.						
15								

Notes:

ppm = parts per million

bgs = below ground surface

bpf = blows per foot

N/W = No Well Installed

(a) = Analytical sample collected

 = water level at completion

Driller: Zebra

Drilling Method: Geoprobe 6620DT

Field Inspector: GSC

Depth to Water: 8.00 ft bgs

Date of Measurement: 8/1/2012

Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-422  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 8/1/12  
Date Finished: 8/1/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt and Crushed Brick						
		Brown to Black GRAVELLY SAND, coarse sand, and quartzite.		(a)				N/W
		Brown SAND, coarse.						
		Black GRAVELLY SAND, medium to coarse sand.						
5		Dark Brown CLAY.		(a)				
		Brown SANDY CLAY (saturated at 8' bgs.).					▼	
10		End of Boring at 10' bgs.						
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 8.00 ft bgs  
Date of Measurement: 8/1/2012  
Project No.: 41569313.00002



# Soil Boring Log

**Boring No.: SB-423**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 8/1/12  
**Date Finished:** 8/1/12

**Survey Location:** N  
E

**Ground Elevation:** ft.

**Inner Casing Elevation:** ft.

**Outer Casing Elevation:** ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt and Brick Fragments.						
		Dark Brown GRAVELLY SAND, medium to coarse sand (dry).	(a)					N/W
		Dark Brown SILTY SAND with GRAVEL, fine to medium sand (dry).	(a)					
5		Brown CLAYEY SILT (wet).						
		Black GRAVELLY SAND, coarse sand (saturated at 5.5' bgs.).						
		Red CLAY, soft (saturated).						
10		End of Boring at 10' bgs.						
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 5.50 ft bgs  
Date of Measurement: 8/1/2012  
Project No.: 41569313.00002



Soil Boring Log				Boring No.: SB-424 Monitoring Well No.: N/W			
<b>Project:</b>		The Dow Chemical Company Philadelphia, PA		<b>Date Started:</b> <b>Date Finished:</b>		8/1/12 8/1/12	
<b>Survey Location:</b>	N E	<b>Ground Elevation:</b>	ft.	<b>Inner Casing Elevation:</b>	ft.	<b>Outer Casing Elevation:</b>	ft.
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC
		Crushed Concrete. Brown SAND with GRAVEL, fine to coarse sand, quartz fragments.		(a)			N/W
		Black GRAVELLY SAND, fine to medium sand.					
		Dark Brown CLAY.					
5		Brown to Light Brown GRAVELLY SAND, coarse sand (dry). Dark Brown to Brown CLAY, moist, saturated at 8' bgs.		(a)			
		some SAND.					
10		End of Boring at 10' bgs.					
15							

Notes:  
 ppm = parts per million                  bpf = blows per foot                  (a) = Analytical sample collected  
 bgs = below ground surface        N/W = No Well Installed              ▼ = water level at completion

Driller: Zebra	Depth to Water: 8.00 ft bgs
Drilling Method: Geoprobe 6620DT	Date of Measurement: 8/1/2012
Field Inspector: GSC	Project No.: 41569313.00002

**URS**



# Soil Boring Log

Boring No.: SB-425  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 8/1/12  
Date Finished: 8/1/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt.						
		Grayish Brown GRAVELLY SAND, medium to coarse (dry).						
		Gray GRAVEL.		(a)				N/W
		Black GRAVELLY SAND, fine to medium sand (saturated at 4' bgs.).						
				(a)				
		Brown CLAY.						
5		End of Boring at 5' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 4.00 ft bgs  
Date of Measurement: 8/1/2012  
Project No.: 41569313.00002

URS No. SB-425



**Boring No.: SB-426**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 8/1/12  
**Date Finished:** 8/1/12


**Survey** N  
**Location:** E

**Ground  
Elevation:**                **ft.**

**Inner Casing**  
**Elevation:**                **ft.**

**Outer Casing**  
**Elevation:**            **ft.**

Notes:

ppm = parts per million	bpf = blows per foot	(a) = Analytical sample collected
bgs = below ground surface	N/W = No Well Installed	 = water level at completion

Driller:	Zebra
Drilling Method:	Geoprobe 6620DT
Field Inspector:	GSC

Depth to Water:	2.50 ft bgs
Date of Measurement:	8/1/2012
Project No.:	41569313.00002



# Soil Boring Log

Boring No.: SB-427  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 8/1/12  
Date Finished: 8/1/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt.						
		Crushed Brick and Gravel Fill.						
		Dark Brown GRAVELLY SAND, fine to coarse sand, moist, saturated at 2.5' bgs.	(a)					N/W
		Dark Brown GRAVEL, wood fragments (saturated).						
		Brown SILTY CLAY.				0.2		
5		End of Boring at 5' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 2.50 ft bgs  
Date of Measurement: 8/1/2012  
Project No.: 41569313.00002



# Soil Boring Log

**Boring No.: SB-428**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 8/1/12  
**Date Finished:** 8/1/12

**Survey** N  
**Location:** E

**Ground  
Elevation:**                **ft.**

**Inner Casing**  
**Elevation:**                **ft.**

**Outer Casing**  
**Elevation:**            **ft.**

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Crushed Asphalt and Concrete with Brick Fragments.						
		Dark Brown SILTY SAND with GRAVEL, fine to coarse sand (saturated at 3.5' bgs.).	(a)					N/W
		Light Brown SILTY CLAY.						
5		End of Boring at 4.5' bgs.						

Notes:

ppm = parts per million

bgs = below ground surface

bpf = blows per foot

N/W = No Well Installed

(a) = Analytical sample collected

 = water level at completion

Driller: Zebra

Drilling Method: Geoprobe 6620DT

Field Inspector: GSC

Depth to Water: 3.50 ft bgs

Date of Measurement: 8/1/2012

Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-429  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 8/1/12  
Date Finished: 8/1/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Brown GRAVELLY SAND, fine to coarse sand.						
			(a)					N/W
			(a)					
		Black SAND with GRAVEL, coarse sand (saturated at 4.5' bgs.).					▼	
5		End of Boring at 5' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 4.50 ft bgs  
Date of Measurement: 8/1/2012  
Project No.: 41569313.00002



[illegible]

**URS**



# Soil Boring Log

**Boring No.: SB-432**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 8/1/12  
**Date Finished:** 8/1/12

**Survey** N  
**Location:** E

**Ground  
Elevation:**            **ft.**

**Inner Casing**  
**Elevation:**                **ft.**

Outer Casing  
Elevation:           ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt and Crushed Concrete.						
		Black GRAVELLY SAND, medium sand, with brick fragments (moist).			(a)			N/W
		Light Brown GRAVELLY SAND, medium to coarse sand (moist).						
		Dark Brown to Brown SAND with GRAVEL, medium to coarse sand (saturated at 3' bgs.).						
		End of Boring at 4' bgs.						
5								

Notes:

ppm = parts per million

bgs = below ground surface

bpf = blows per foot

N/W = No Well Installed

(a) = Analytical sample collected

 = water level at completion

Driller: Zebra

Drilling Method: Geoprobe 6620DT

Field Inspector: GSC

Depth to Water: 3.00 ft bgs

Date of Measurement: 8/1/2012

Project No.: 41569313.00002



**Boring No.: SB-433**  
**Monitoring Well No.: N/W**

URS No. SB-433

[illegible]



# Soil Boring Log

Boring No.: SB-435  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 8/7/12  
Date Finished: 8/7/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Concrete.						
				(a)				N/W
		Gray GRAVEL (saturated).					▼	
		Gray to Black GRAVELLY SAND, fine to coarse sand (saturated).						
5		End of Boring at 5' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 3.50 ft bgs  
Date of Measurement: 8/7/2012  
Project No.: 41569313.00002

URS No. SB-435



# Soil Boring Log

Boring No.: SB-436  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 8/7/12  
Date Finished: 8/7/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Concrete.						
				(a)				N/W
		Gray SANDY GRAVEL, medium to coarse gravel, dry becoming saturated towards base.					▼	
		Brown SAND, fine to medium (saturated).						
5		End of Boring at 5' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 3.00 ft bgs  
Date of Measurement: 8/7/2012  
Project No.: 41569313.00002

URS No. SB-436



# Soil Boring Log

Boring No.: SB-437  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 8/7/12  
Date Finished: 8/7/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt and Concrete.						
		Black to Gray SANDY GRAVEL, fine to medium gravel, dry becoming saturated towards base.						
		Red to Gray GRAVEL, coarse gravel (saturated).						
5		End of Boring at 5' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 3.00 ft bgs  
Date of Measurement: 8/7/2012  
Project No.: 41569313.00002

URS No. SB-437



# Soil Boring Log

**Boring No.: SB-438**  
**Monitoring Well No.: N/W**

**Project:** The Dow Chemical Company  
Philadelphia, PA

**Date Started:** 8/7/12  
**Date Finished:** 8/7/12

**Survey** N  
**Location:** E

**Ground  
Elevation:**                **ft.**

**Inner Casing**  
**Elevation:**            **ft.**

Outer Casing  
Elevation:           ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Fill.						
		Concrete.						
5		Gray to Black SILTY SAND, fine to medium sand, some rounded gravel (saturated at 4.5' bgs.).			(a)	3.8		
		Gray GRAVEL, angular (saturated).						
		Gray to Brown SAND, fine to medium (saturated).						
10		Brown CLAY (saturated).				0.4		
		End of Boring at 10' bgs.						
15								

Notes:

ppm = parts per million

bgs = below ground surface

bpf = blows per foot

N/W = No Well Installed

(a) = Analytical sample collected

 = water level at completion

Driller: Zebra

Drilling Method: Geoprobe 6620DT

Field Inspector: GSC

Depth to Water: 4.50 ft bgs

Date of Measurement: 8/7/2012

Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-439  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 8/13/12  
Date Finished: 8/13/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
0		Fill.						
5		CLAY, strong odor (saturated at 7' bgs.).						
10		Black SANDY GRAVEL.						
15		End of Boring at 10' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 7.00 ft bgs  
Date of Measurement: 8/13/2012  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-440  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 9/13/12  
Date Finished: 9/13/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
5		Fill.						N/W
10		Wood Fragments with GRAVEL (strong odor, saturated at 8' bgs., stain on water).					▼	
15		End of Boring at 10' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 8.00 ft bgs  
Date of Measurement: 9/13/2012  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-441  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 9/13/12  
Date Finished: 9/13/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		NO RECOVERY.						N/W
5		Black SAND, fine to medium, little silt, trace gravel.				48.3		
		Black SAND, medium to coarse, little silt, little gravel.				36.2		
10		coarse sand, wood fragments, NAPL. some gravel.				203 72.3		
15		End of Boring at 15' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: ft bgs  
Date of Measurement:  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-442  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 9/13/12  
Date Finished: 9/13/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt.						
		Gray SANDY GRAVEL.						N/W
5		Gray GRAVELLY SAND, fine to coarse sand (saturated at 7' bgs.).				40.5	▼	
		(sheen and odor).						
10		Dark Gray CLAY (sheen and odor).						
		End of Boring at 10' bgs.						
15								

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 7.00 ft bgs  
Date of Measurement: 9/13/2012  
Project No.: 41569313.00002



# Soil Boring Log

Boring No.: SB-443  
Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 9/13/12  
Date Finished: 9/13/12

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Concrete and Fill.						
		Brown SANDY SILT with GRAVEL.						N/W
5		Dark Brown CLAY, (saturated at 8' bgs.).						
10		Dark Brown SILTY SAND (saturated).						
15		End of Boring at 15' bgs.						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Zebra  
Drilling Method: Geoprobe 6620DT  
Field Inspector: GSC

Depth to Water: 12.00 ft bgs  
Date of Measurement: 9/13/2012  
Project No.: 41569313.00002

URS No. SB-443



# Soil Boring Log

Boring No.: VP-01 / SB-77  
Monitoring Well No.: Vapor Point

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 10/16/07  
Date Finished: 10/16/07

Survey N256197.28  
Location: E2722240.42

Ground Elevation: 7.34 ft.

Inner Casing Elevation: 7.04 ft.

Outer Casing Elevation: 7.34 ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	6.8	Asphalt						Flush Mount Casing Bentonite Seal
		Dark gray to gray fine-coarse SAND with gravel, medium dense, dry				13.7		#1 Sand
						64.2		0.10 Slot Screen
						54.7		
		Saturated at 4 feet				1067		
	3.3	End of Boring at 4 feet bgs						Analytical soil sample collected from 0.0-2.0 feet
5								Analytical soil sample collected from 3.0-4.0 feet

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichel: Martinez/Livingston  
Drilling Method: CME 75 HSA / Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 4.00 ft bgs  
Date of Measurement: 10/16/2007  
Project No.: 19997570.00003



# Soil Boring Log

Boring No.: VP-02 / SB-145  
Monitoring Well No.: Vapor Point

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 10/16/07  
Date Finished: 10/16/07

Survey N256175.00  
Location: E2722266.61

Ground Elevation: 7.39 ft.

Inner Casing Elevation: 6.97 ft.

Outer Casing Elevation: 7.40 ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	6.9	Asphalt				0.0		Flush Mount Casing Bentonite Seal
		Gray to Brown fine-coarse SAND and GRAVEL, medium dense, dry				121		# 1 Sand
						205		0.10 Slot Screen
						3150		
5		Saturated at 4 feet Note: Water has oily sheen with very strong odor						Analytical soil sample collected from 0.0-2.0 feet
	-0.6							Analytical soil sample collected from 3.0-4.0 feet
		End of Boring at 8 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichel: Martinez/Livingston  
Drilling Method: CME 75 HSA / Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 4.00 ft bgs  
Date of Measurement: 10/16/2007  
Project No.: 19997570.00003



# Soil Boring Log

Boring No.: VP-03 / SB-147  
Monitoring Well No.: Vapor Point

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 10/16/07  
Date Finished: 10/16/07

Survey N256130.80  
Location: E2722287.50

Ground Elevation: 7.70 ft.

Inner Casing Elevation: 7.37 ft.

Outer Casing Elevation: 7.68 ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
7.5		Asphalt						Flush Mount Casing
		Gray-black-brown, fine-coarse SAND with gravel, medium density, dry- moist, strong odor				147		Concrete
						812		Bentonite Seal
						1725		#1 Sand
						3750		0.10 Slot Screen
5		Saturated at 4 feet						Analytical soil sample collected at 0-2 feet
								Analytical soil sample collected at 3-4 feet
-0.3		End of boring at 8 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers- Mike Livingston  
Drilling Method: Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 4.00 ft bgs  
Date of Measurement: 10/16/2007  
Project No.: 19997570.00003



# Soil Boring Log

Boring No.: VP-04 / SB-148  
Monitoring Well No.: Vapor Point

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 11/13/07  
Date Finished: 11/13/07

Survey N256093.46  
Location: E2722268.56

Ground Elevation: 7.53 ft.

Inner Casing Elevation: 7.27 ft.

Outer Casing Elevation: 7.58 ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	7.3	Asphalt						Flush Mount Casing
		Brown fine-coarse SAND with gravel, medium dense, dry		4		95.6		Bentonite Seal
	6.8	Light gray fine-coarse SAND with gravel, dense, dry		7				
				7		214		# 1 Sand
				8				0.10 Slot Screen
	5.1	Dark reddish black fine-coarse SAND with gravel, medium dense, moist		2		137		
				25				
				7		1784		
		Saturated at 4 feet		3				Analytical soil sample collected from 0.0-2.0 feet
5				5				
				3				
				2				
	1.5			2				Analytical soil sample collected from 3.0-4.0 feet
		End of Boring at 6 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers - Mike Martinez  
Drilling Method: CME 75 HSA  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 4.00 ft bgs  
Date of Measurement: 11/13/2007  
Project No.: 19997570.00003



# Soil Boring Log

Boring No.: VP-05 / SB-73

Monitoring Well No.: Vapor Point

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/17/07  
**Date Finished:** 10/17/07

**Survey** N256309.77  
**Location:** E2722116.38

**Ground**  
**Elevation:** 5.82 ft.

**Inner Casing**  
**Elevation:** 5.63 ft.

**Outer Casing**  
**Elevation:** 5.90 ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Dark brown to black fine-coarse SAND with gravel and brick fragments, loose, dry				0.0		Flush Mount Casing Concrete Bentonite Seal
		Moist at 1.5 feet				0.0		#1 Sand 0.10 Slot
		Saturated at 3 feet				0.0		
1.8						0.0		
5		End of Boring at 4 feet bgs						Analytical soil sample collected from 0.0-2.0 feet
								Analytical soil sample collected from 2.0-3.0 feet

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichel: Martinez/Livingston  
**Drilling Method:** CME 75 HSA / Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 3.00 ft bgs  
**Date of Measurement:** 10/17/2007  
**Project No.:** 19997570.00003

URS No. VP-05 / SB-73



# Soil Boring Log

Boring No.: VP-06 / SB-78

Monitoring Well No.: Vapor Point

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/16/07  
**Date Finished:** 10/16/07

**Survey** N256152.92  
**Location:** E2722127.77

**Ground**  
**Elevation:** 6.92 ft.

**Inner Casing**  
**Elevation:** 6.68 ft.

**Outer Casing**  
**Elevation:** 6.95 ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	6.4	Asphalt						Flush Mount Casing
		Gray to brown fine-coarse SAND with gravel, medium dense, saturated at 4 feet				0.0		Concrete
						3.6		Bentonite Seal
						0.0		#1 Sand
						16.4		0.10 Slot Screen
	2.9	End of Boring at 4 feet bgs						Analytical soil sample collected from 0.0-2.0 feet
5								Analytical soil sample collected from 3.0-4.0 feet

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichel: Martinez/Livingston  
**Drilling Method:** CME 75 HSA / Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 4.00 ft bgs  
**Date of Measurement:** 10/16/2007  
**Project No.:** 19997570.00003

URS No. VP-06 / SB-78



# Soil Boring Log

Boring No.: VP-07 / SB-132  
Monitoring Well No.: Vapor Point

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 10/22/07  
Date Finished: 10/22/07

Survey N256096.60  
Location: E2721914.93

Ground Elevation: 6.88 ft.

Inner Casing Elevation: 6.54 ft.

Outer Casing Elevation: 6.88 ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
6.6		Asphalt						Flush Mount Casing
		Dark brown, Clayey fine-coarse SAND with gravel, loose to medium dense, dry- moist				0.0		Concrete
						0.0		Bentonite Seal
						0.0		#1 Sand
						0.0		0.10 Slot Screen
		Saturated at 3 feet						Analytical soil sample collected at 0-2 feet
-1.1								
		End of boring at 4 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers- Mike Livingston  
Drilling Method: Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 3.00 ft bgs  
Date of Measurement: 10/22/2007  
Project No.: 19997570.00003



# Soil Boring Log

Boring No.: VP-08 / SB-85

Monitoring Well No.: Vapor Point

**Project:** Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

**Date Started:** 10/11/07  
**Date Finished:** 10/11/07

**Survey** N256001.81  
**Location:** E2722222.20

**Ground**  
**Elevation:** 9.21 ft.

**Inner Casing**  
**Elevation:** 8.86 ft.

**Outer Casing**  
**Elevation:** 9.23 ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	8.9	Asphalt						Flush Mount Casing
		Brown to grayish brown fine-coarse Silty SAND, fine-coarse angular gravel, trace clay, dry				0.0		Concrete
								Bentonite Seal
						0.0		#1 Sand
								0.10 Slot Screen
		Moist at 3 feet				0.0		
	5.2	Dark grayish black fine-coarse Silty SAND, fine-medium angular gravel, saturated at 4 feet				7.4		Analytical soil sample collected from 0.0-2.0 feet
5								
	3.4							
	3.2	CONCRETE						Analytical soil sample collected from 3.0-4.0 feet
		End of Boring at 6 feet bgs						

## Notes:

ppm = parts per million  
bgs = below ground surface

bpf = blows per foot  
N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

**Driller:** Eichel: Martinez/Livingston  
**Drilling Method:** CME 75 HSA / Geoprobe  
**Field Inspector:** J. Bridge/ M. Pitchford

**Depth to Water:** 4.00 ft bgs  
**Date of Measurement:** 10/11/2007  
**Project No.:** 19997570.00003



# Soil Boring Log

Boring No.: VP-09 / SB-143  
Monitoring Well No.: Vapor Point

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 11/12/07  
Date Finished: 11/12/07

Survey N256210.50  
Location: E2722290.77

Ground Elevation: 6.88 ft.

Inner Casing Elevation: 6.50 ft.

Outer Casing Elevation: 6.89 ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Brown fine to coarse SAND and GRAVEL, moist, loose		6				Flush Mount Casing
				5		0.0		Concrete
				11				Bentonite Seal
				5		0.0		#1 Sand
	4.9			6				0.10 Slot Screen
		Black fine to coarse SAND and GRAVEL, moist-wet		5		1.1		
				1				
				5		0.0		
		Saturated at 4 feet, slight sheen on saturated soil		3				Analytical soil sample collected from 0.0-2.0 feet
5				3				
				1				
	0.9			1				
		End of boring at 6 feet bgs						Analytical soil sample collected from 2.0-4.0 feet

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichel: Martinez/Livingston  
Drilling Method: CME 75 HSA / Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 4.00 ft bgs  
Date of Measurement: 11/12/2007  
Project No.: 19997570.00003

URS No. VP-09 / SB-143



# Soil Boring Log

Boring No.: VP-10 / SB-152  
Monitoring Well No.: Vapor Point

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

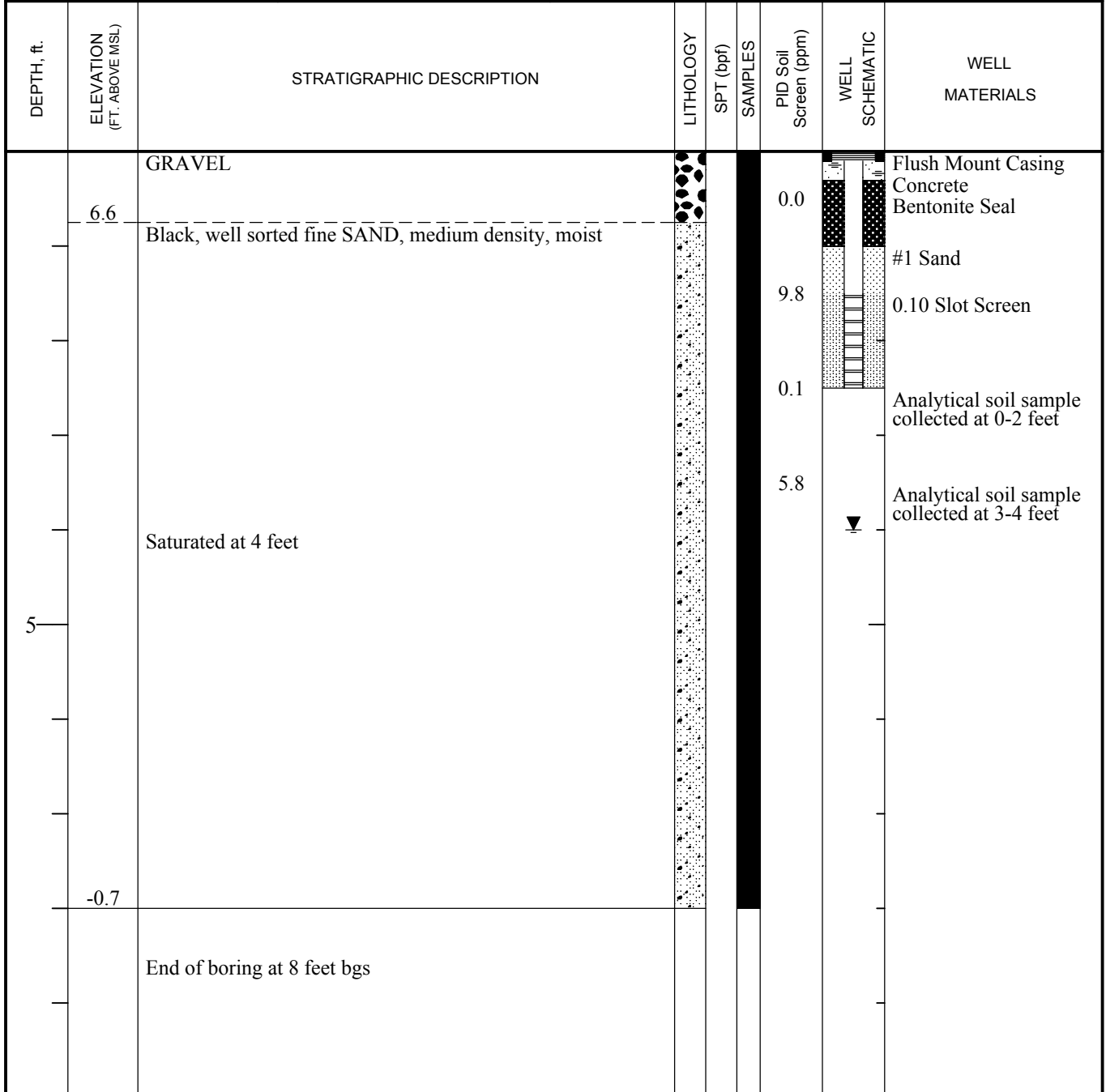
Date Started: 10/8/07  
Date Finished: 10/8/07

Survey N255929.60  
Location: E2722205.90

Ground Elevation: 7.30 ft.

Inner Casing Elevation: 7.70 ft.

Outer Casing Elevation: 7.96 ft.



## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers- Mike Livingston  
Drilling Method: Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 4.00 ft bgs  
Date of Measurement: 10/8/2007  
Project No.: 19997570.00003



# Soil Boring Log

Boring No.: VP-11 / SB-123  
Monitoring Well No.: Vapor Point

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 10/18/07  
Date Finished: 10/18/07

Survey N255937.70  
Location: E2721558.80

Ground Elevation: 6.20 ft.

Inner Casing Elevation: 5.82 ft.

Outer Casing Elevation: 6.16 ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
6.0		Asphalt						Flush Mount Casing
		Light brown-brown, fine-coarse SAND with gravel fragments, loose, dry				4.1		Concrete
						184		Bentonite Seal
								#1 Sand
		Soil moist at 2.5 feet				28.1		0.10 Slot Screen
		Brown-dark brown, fine-coarse SAND with gravel fragments, loose, saturated				5.1		Analytical soil sample collected at 0-2 feet
2.2								Analytical soil sample collected at 2-3 feet
		End of boring at 4 feet bgs						
5								

## Notes:

ppm = parts per million  
bgs = below ground surface

bpf = blows per foot  
N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers- Mike Livingston  
Drilling Method: Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 3.00 ft bgs  
Date of Measurement: 10/18/2007  
Project No.: 19997570.00003



# Soil Boring Log

Boring No.: VP-12 / SB-127  
Monitoring Well No.: Vapor Point

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 10/22/07  
Date Finished: 10/22/07

Survey N256311.50  
Location: E2721705.00

Ground Elevation: 7.00 ft.

Inner Casing Elevation: 6.67 ft.

Outer Casing Elevation: 6.98 ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
6.8		Asphalt						Flush Mount Casing
		Gray GRAVEL fragments, loose, dry				0.0		Concrete
								Bentonite Seal
5.5						0.0		#1 Sand
		Black, fine-coarse SAND with gravel fragments, loose, moist-wet						0.10 Slot Screen
						0.0		Analytical soil sample collected at 0-2 feet
3.0						0.0		
		End of boring at 4 feet bgs						Note: Groundwater not encountered
5								

## Notes:

ppm = parts per million  
bgs = below ground surface

bpf = blows per foot  
N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers- Mike Livingston  
Drilling Method: Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: ft bgs  
Date of Measurement: 10/22/2007  
Project No.: 19997570.00003



# Soil Boring Log

Boring No.: VP-13 / SB-126  
Monitoring Well No.: Vapor Point

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 10/22/07  
Date Finished: 10/22/07

Survey N256258.43  
Location: E2721572.57

Ground Elevation: 5.47 ft.

Inner Casing Elevation: 5.24 ft.

Outer Casing Elevation: 5.48 ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
5.2		Asphalt						Flush Mount Casing
		Dark brown-black fine-coarse SAND with gravel, loose, wet				0.0		Concrete
								Bentonite Seal
						0.0		#1 Sand
		Saturated at 2 feet						0.10 Slot Screen
	2.0					3.6		Analytical soil sample collected at 0-2 feet
						0.7		
5		End of boring at 3.5 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichelbergers- Mike Livingston  
Drilling Method: Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 2.00 ft bgs  
Date of Measurement: 10/22/2007  
Project No.: 19997570.00003



# Soil Boring Log

Boring No.: VP-14 / SB-165  
Monitoring Well No.: Vapor Point

Project: Rohm and Haas Philadelphia Plant  
Philadelphia, Pennsylvania

Date Started: 10/5/07  
Date Finished: 10/5/07

Survey N255023.00  
Location: E2721636.84

Ground Elevation: 7.78 ft.

Inner Casing Elevation: 7.37 ft.

Outer Casing Elevation: 7.79 ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
	7.5	Asphalt						Flush Mount Casing
		Dark brown to brownish black fine-coarse SAND with gravel fragments, loose-medium dense, dry				0.0		Bentonite Seal
						0.0		
						0.0		# 1 Sand
						0.0		0.10 Slot Screen
						0.0		Analytical soil sample collected from 0.0-2.0 feet
5		Intermittent quartz fragments				0.0		
		Saturated at 6 feet				0.0		Analytical soil sample collected from 5.0-6.0 feet
						0.0		
	-0.2					0.0		
		End of Boring at 8 feet bgs						

## Notes:

ppm = parts per million      bpf = blows per foot  
bgs = below ground surface      N/W = No Well Installed

(a) = Analytical sample collected  
▼ = water level at completion

Driller: Eichel: Martinez/Livingston  
Drilling Method: CME 75 HSA / Geoprobe  
Field Inspector: J. Bridge/ M. Pitchford

Depth to Water: 6.00 ft bgs  
Date of Measurement: 10/5/2007  
Project No.: 19997570.00003



# Soil Boring Log

Boring No.: VP-20 / SB-217

Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/15/08  
Date Finished: 12/15/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						Flush Mount Casing
		Dk. Brown to Black f-m SAND, w/ ang. gravel & clay frags (Moist)				0.0		Concrete
								Granular Bentonite Seal
		Lt. Grayish Brown silty med. SAND, w/ ang. gravel (Moist)				0.0		#1 Sand
								0.10 Slot Screen
		Lt. Grayish Brown silty med. SAND, w/ ang. gravel (Saturated)						
		Lt. Brown med. SAND, w/ intermittent ang. gravel (Saturated)						
		Brown coarse SAND, w/ intermittent ang. gravel (Saturated)						
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MSP

Depth to Water: 2.00 ft bgs  
Date of Measurement: 12/15/08  
Project No.: 19998083.00003

URS No. VP-20 / SB-217



**Boring No.: VP-21 / SB-220**  
**Monitoring Well No.: N\W**

**Date Started:** 1/6/09  
**Date Finished:** 1/6/09

**Outer Casing  
Elevation:**                      **ft.**

CURS No. VP-21 / SB-220

▽ = water level at completion

Depth to Water:	4.00 ft bgs
Date of Measurement:	1/6/2009
Project No.:	19998083.00003



# Soil Boring Log

Boring No.: VP-22 / SB-208

Monitoring Well No.: N\W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/16/08  
Date Finished: 12/16/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						Flush Mount Casing Concrete
		Gray GRAVEL				0.0		Granular Bentonite Seal
		Dk. Brown very dense m-c SAND, w/ subrounded gravel, some glass frags (Moist)				0.0		
		Lt. Brown well sorted, poorly graded, very dense, med. SAND (Moist)				0.0		#1 Sand
						0.0		0.10 Slot Screen
		Dk. Brown dense, coarse SAND & ang. GRAVEL (Saturated)				0.0		
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MSP

Depth to Water: 4.50 ft bgs  
Date of Measurement: 12/16/2008  
Project No.: 19998083.00003

URS No. VP-22 / SB-208



# Soil Boring Log

Boring No.: VP-23 / SB-301

Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/18/08  
Date Finished: 12/18/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						Flush Mount Casing Concrete
		Black to brown to tan, f-m silty SAND & f-c ang. GRAVEL (Dry)				0.0		Granular Bentonite Seal
						69.1		
		Dk. Gray to Brown to Dk. Gray, f-m silty SAND, trace clay, trace f-m rounded gravel, (strong odor) (Moist)				1412		#1 Sand
						3594		0.10 Slot Screen
		Dk. Gray to Brown to Dk. Gray, f-m silty SAND, trace clay, trace f-m rounded gravel, (strong odor) (Saturated)						
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MSP

Depth to Water: 4.00 ft bgs  
Date of Measurement: 12/18/2008  
Project No.: 19998083.00003

URS No. VP-23 / SB-301



# Soil Boring Log

Boring No.: VP-24 / SB-261

Monitoring Well No.: N\W

Project: The Dow Chemical Company  
Philadelphia, PA

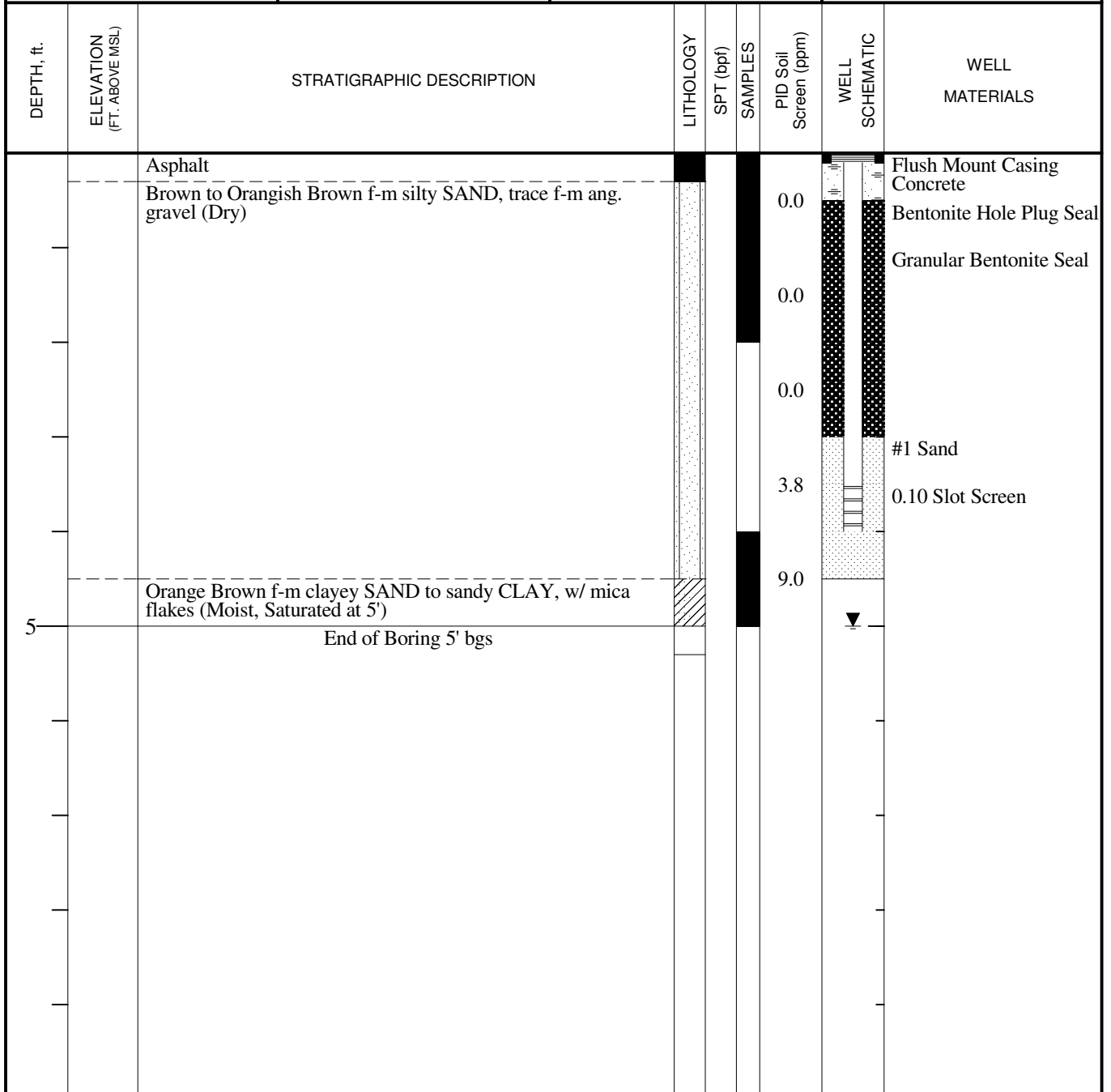
Date Started: 12/18/08  
Date Finished: 12/18/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.



## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MSP

Depth to Water: 5.00 ft bgs  
Date of Measurement: 12/18/2008  
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: VP-25 / SB-260

Monitoring Well No.: N\W

Project: The Dow Chemical Company  
Philadelphia, PA

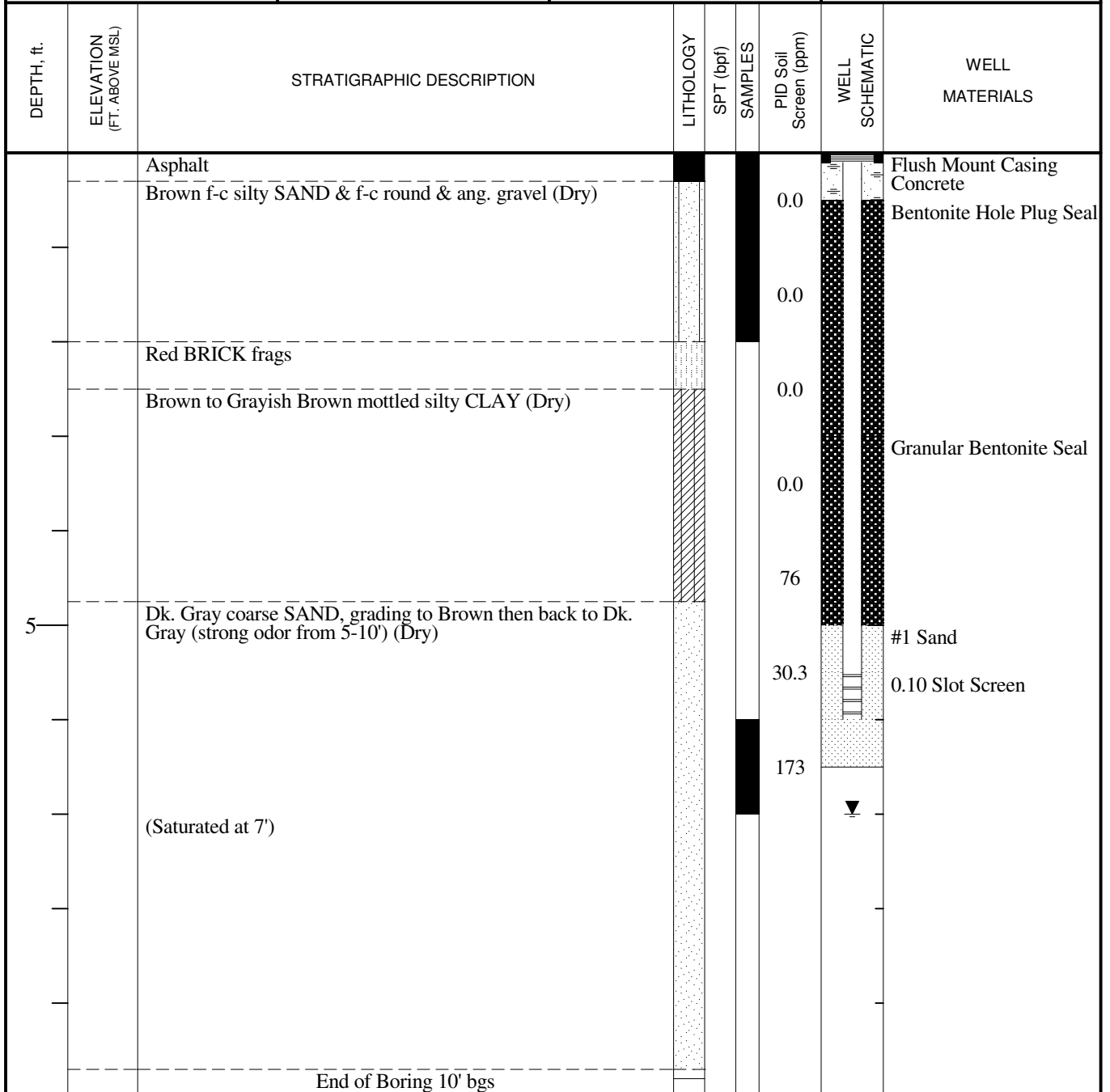
Date Started: 12/18/08  
Date Finished: 12/18/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.



## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MSP

Depth to Water: 7.00 ft bgs  
Date of Measurement: 12/18/2008  
Project No.: 19998083.00003

URS No. VP-25 / SB-260



# Soil Boring Log

Boring No.: VP-26 / SB-273

Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

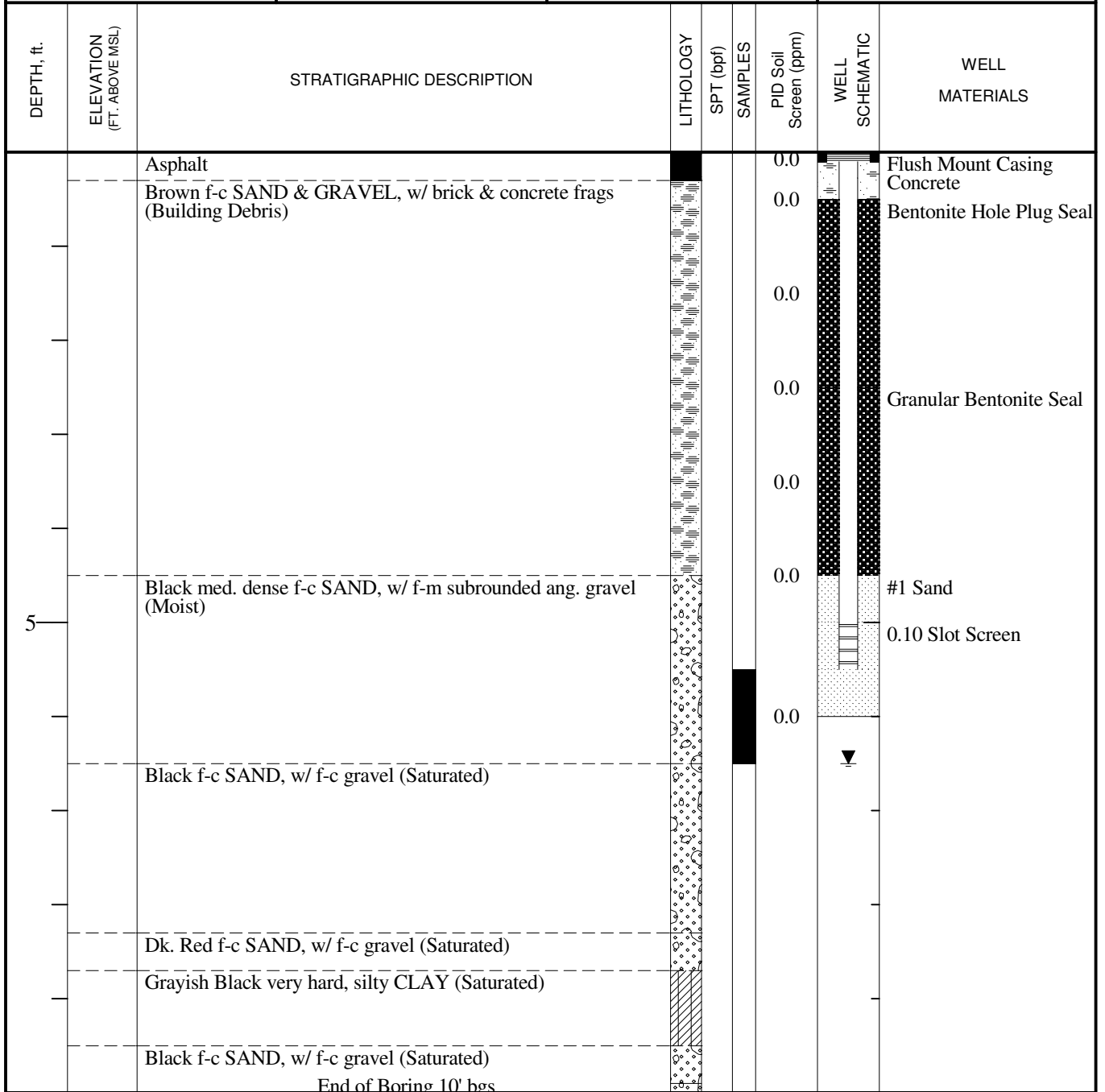
Date Started: 1/8/09  
Date Finished: 1/8/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.



## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 6.50 ft bgs  
Date of Measurement: 1/8/2009  
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: VP-27 / SB-304

Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/14/09  
Date Finished: 1/14/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Weathered Concrete (Dry)				0.0		Flush Mount Casing Concrete
								Bentonite Hole Plug Seal
		Brown f-c SAND, w/ ang. subrounded gravel (Moist)				2.4		
								Granular Bentonite Seal
		Red BRICK frags (Moist)				0.0		
		Dk. Brown to Black f-c SAND, w/ f-c ang. gravel (Moist)				0.0		
5						12.9		#1 Sand
								0.10 Slot Screen
						2.1		
		Dk. Brown to Black f-c SAND, w/ f-c ang. gravel (Saturated)						
		Dk. Red f-c SAND, w/ f-c ang. gravel (Saturated)						
		Black f-c SAND, w/ f-c ang. gravel (Saturated)						
		Dk. Red f-c SAND, w/ f-c ang. gravel (Saturated)						
		End of Boring 10' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 6.00 ft bgs  
Date of Measurement: 1/14/2009  
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: VP-28 / SB-275

Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/7/09  
Date Finished: 1/7/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						Flush Mount Casing Concrete
		BRICK & CONCRETE (Building debris) (Dry)				0.0		Granular Bentonite Seal
						0.0		
		Lt. Brown to Dk. Brown hard, silty f-m SAND, w/ intermittent fine ang. gravel (Moist)				1.4		#1 Sand
		Brown hard, f-m SAND, w/ fine ang gravel (Wet)				0.0		0.10 Slot Screen
		Brown hard, f-m SAND, w/ fine ang. gravel (Saturated)						
		Gray f-m SAND, w/ fine ang. gravel (Saturated)						
		Black f-m SAND, w/ fine ang. gravel (Saturated)						
5								
		Dk. Red f-m SAND, w/ fine ang. gravel (Saturated)						
		Gray to Black f-c SAND, w/ f-c ang. subrounded gravel (Saturated)						
		Brown f-c SAND, w/ f-c ang. subrounded gravel (Saturated)						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 4.00 ft bgs  
Date of Measurement: 1/7/2009  
Project No.: 19998083.00003

URS No. VP-28 / SB-275



[illegible]

URS No. VP-28 / SB-275



# Soil Boring Log

Boring No.: VP-29 / SB-278

Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/9/09  
Date Finished: 1/9/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						Flush Mount Casing
		Gray f-c SAND, w/ f-c GRAVEL (Dry)				10.1		Concrete
		Tan f-m SAND, w/ m-c GRAVEL (Dry)						Granular Bentonite Seal
		Black med. dense, clayey silty f-m SAND, w/ f-m GRAVEL (Wet, Saturated at 2' )				3672		#1 Sand 0.10 Slot Screen
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 2.00 ft bgs  
Date of Measurement: 1/9/2009  
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: VP-30 / SB-277

Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/8/09  
Date Finished: 1/8/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Dk. Brown f-c silty SAND, w/ f-c ang. subrounded gravel (Moist)				0.0		Flush Mount Casing
		Black med. dense, f-c silty SAND, w/ f-c ang. subrounded gravel (Wet)				20.3		Concrete
								Granular Bentonite Seal
		Grayish Black f-c SAND & m-c ang. GRAVEL (Wet)				9.6		#1 Sand
		Saturated at 2.5 ft						0.10 Slot Screen
5		End of Boring 5' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 2.50 ft bgs  
Date of Measurement: 1/8/2009  
Project No.: 19998083.00003

URS No. VP-30 / SB-277



# Soil Boring Log

Boring No.: VP-31 / SB-292

Monitoring Well No.: N\W

Project: The Dow Chemical Company  
Philadelphia, PA

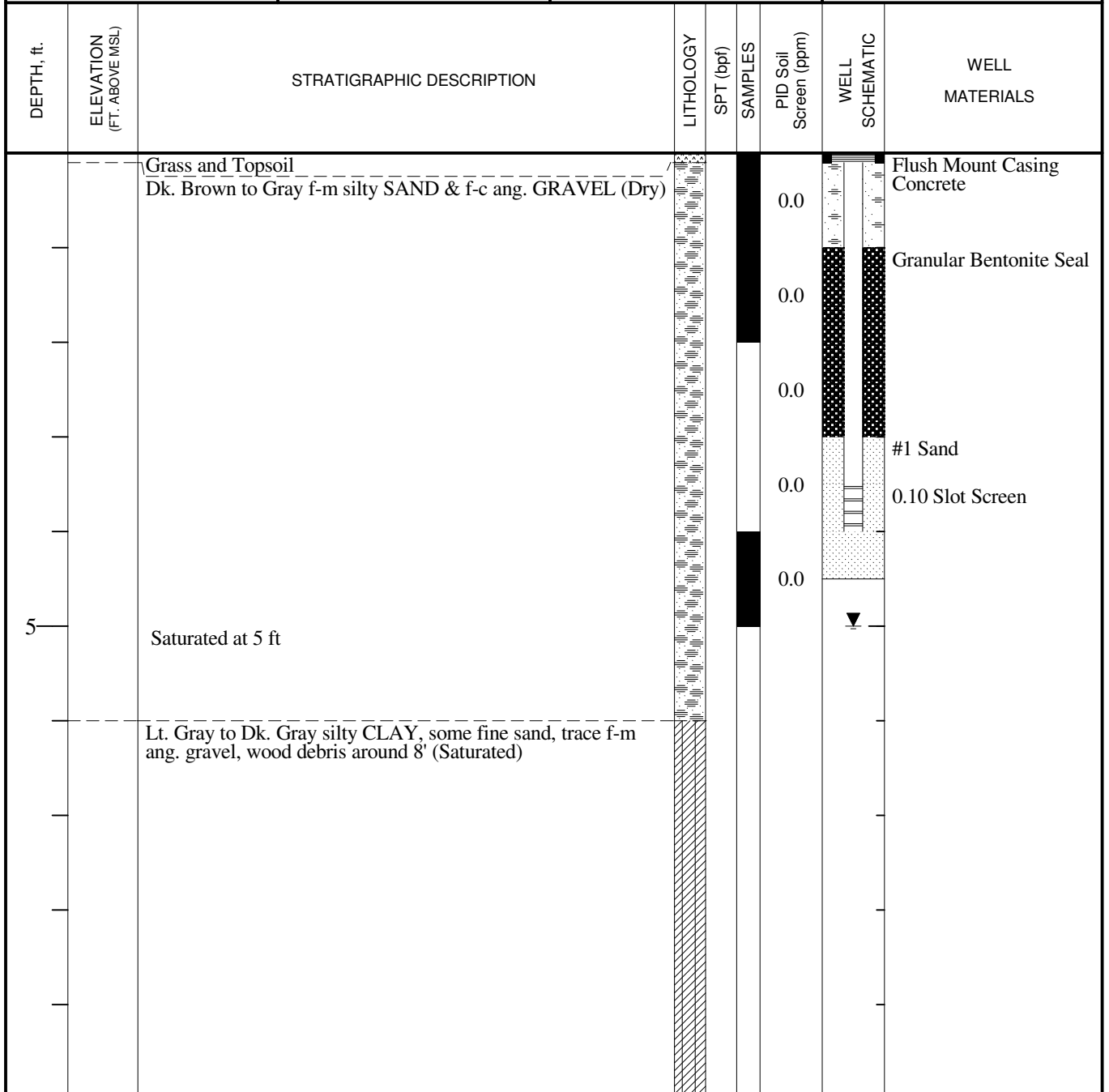
Date Started: 2/2/09  
Date Finished: 2/2/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.



## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 2/2/2009  
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: VP-31 / SB-292

Monitoring Well No.: N\W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 2/2/09  
Date Finished: 2/2/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15		Gray micaceous silty CLAY, med. density, med. plasticity, (Saturated)						
		End of Boring 15' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 5.00 ft bgs  
Date of Measurement: 2/2/2009  
Project No.: 19998083.00003

URS No. VP-31 / SB-292



# Soil Boring Log

Boring No.: VP-32 / SB-306

Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/12/09  
Date Finished: 1/12/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Gray loose m-c GRAVEL (Dry)						Flush Mount Casing Concrete
		Grayish brown medium density f-m SAND w/ angular subrounded gravel (Dry)				0.0		Granular Bentonite Seal
		Brown soft f-m SAND w/ angular subrounded gravel (moist)				0.0		#1 Sand
		Dark brown f-c SAND w/ angular subrounded and rounded gravel (moist, saturated at 3') slight odor below 3'				0.0		0.10 Slot Screen
5		Wood fragments						
		Black f-c SAND w/ f-c gravel (Saturated)						
		Dark gray to black soft silty CLAY (Saturated)						
		Decomposed wood fragments						
		Gray medium density f-c SAND w/ concrete and brick fragments (Saturated)						
		Dark gray to black soft silty CLAY (Saturated)						
		Black soft f-c SAND w/ angular subrounded to rounded gravel (Saturated)						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 3.00 ft bgs  
Date of Measurement: 1/12/2009  
Project No.: 19998083.00003

URS No. VP-32 / SB-306



# Soil Boring Log

Boring No.: VP-32 / SB-306

Monitoring Well No.: N\W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/12/09  
Date Finished: 1/12/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Dark gray micaceous medium density clayey SILT (Saturated)						
		Gray medium density f-c SAND and GRAVEL (Saturated)						
		Gray micaceous medium density medium to high plasticity CLAY (Saturated)						
15		End of Boring 15' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 3.00 ft bgs  
Date of Measurement: 1/12/2009  
Project No.: 19998083.00003

URS No. VP-32 / SB-306



# Soil Boring Log

Boring No.: VP-33 / SB-315

Monitoring Well No.: N\W

Project: The Dow Chemical Company  
Philadelphia, PA

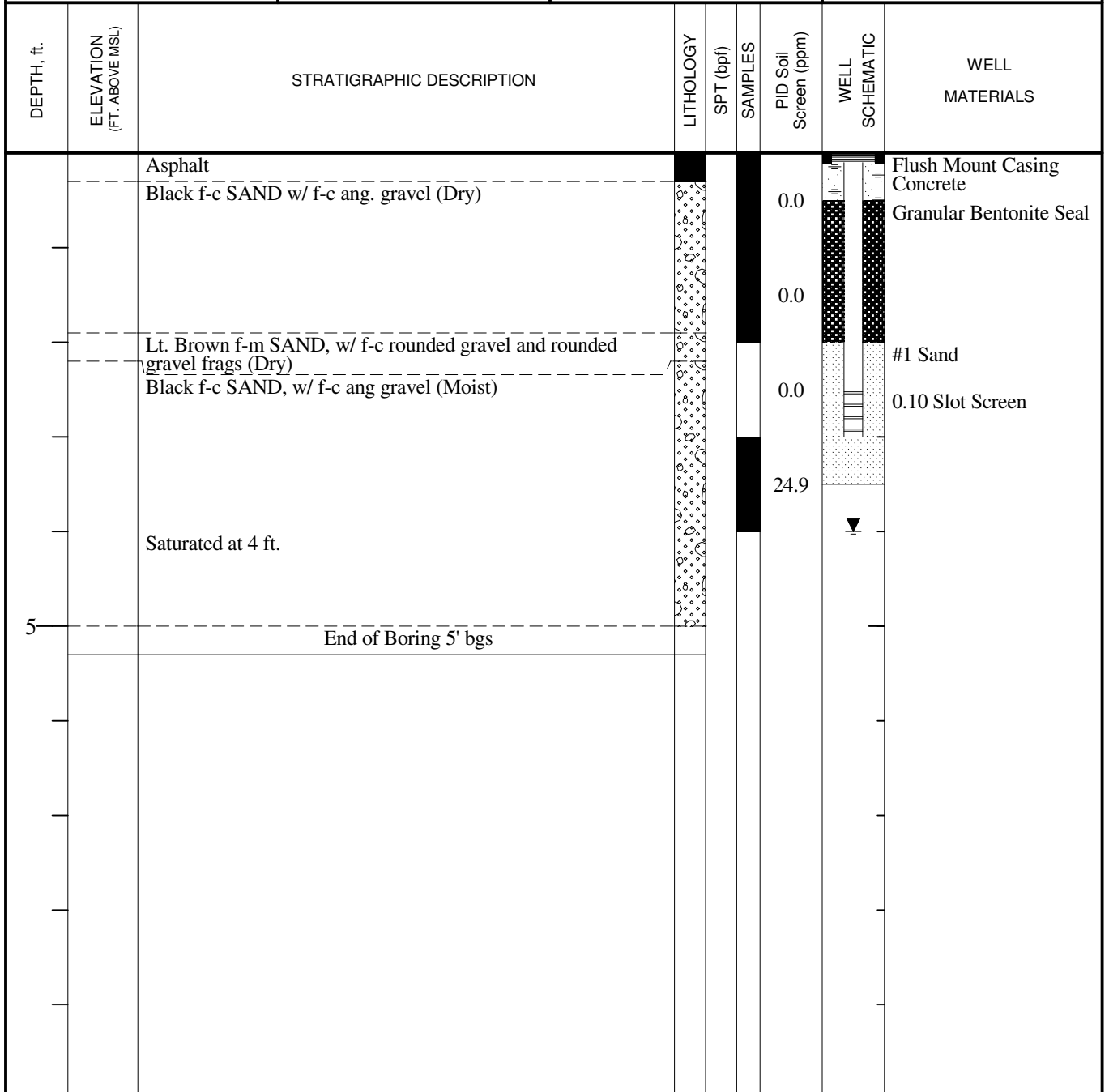
Date Started: 1/15/09  
Date Finished: 1/15/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.



## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 4.00 ft bgs  
Date of Measurement: 1/15/2009  
Project No.: 19998083.00003

URS No. VP-33 / SB-315



**Boring No.: VP-34 / SB-287**  
**Monitoring Well No.: N\W**

**Date Started:** 1/9/09  
**Date Finished:** 1/9/09

**Outer Casing**  
**Elevation:**            **ft.**

URS No. VP-34 / SB-287

(a) = Analytical sample collected  
▼ = water level at completion

Depth to Water:	3.00 ft bgs
Date of Measurement:	1/9/2009
Project No.:	19998083.00003



# Soil Boring Log

Boring No.: VP-35 / SB-308

Monitoring Well No.: N\W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/19/08  
Date Finished: 12/19/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						Flush Mount Casing Concrete
		Brown f-m silty SAND & f-c ang. GRAVEL (Dry)				5.9		Bentonite Hole Plug Seal
						121		
		Brown f-c clayey SAND (strong odor) (Dry)				207		
		Brown to Dk. Gray to Brown f-c silty SAND, trace f-m rounded gravel (Moist)				78.4		Granular Bentonite Seal
						21.5		
5						9.3		#1 Sand
						2.2		0.10 Slot Screen
						1.2		
		Brown to Dk. Gray to Brown f-c silty SAND, trace f-m rounded gravel, brick frags (Saturated)						
		Dk. Gray f-c silty SAND & fine ang. gravel, strong odor (sheen on water) (Saturated)						
		End of Boring 10' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MSP

Depth to Water: 7.50 ft bgs  
Date of Measurement: 12/19/2008  
Project No.: 19998083.00003

URS No. VP-35 / SB-308



# Soil Boring Log

Boring No.: VP-36 / SB-309

Monitoring Well No.: N\W

Project: The Dow Chemical Company  
Philadelphia, PA

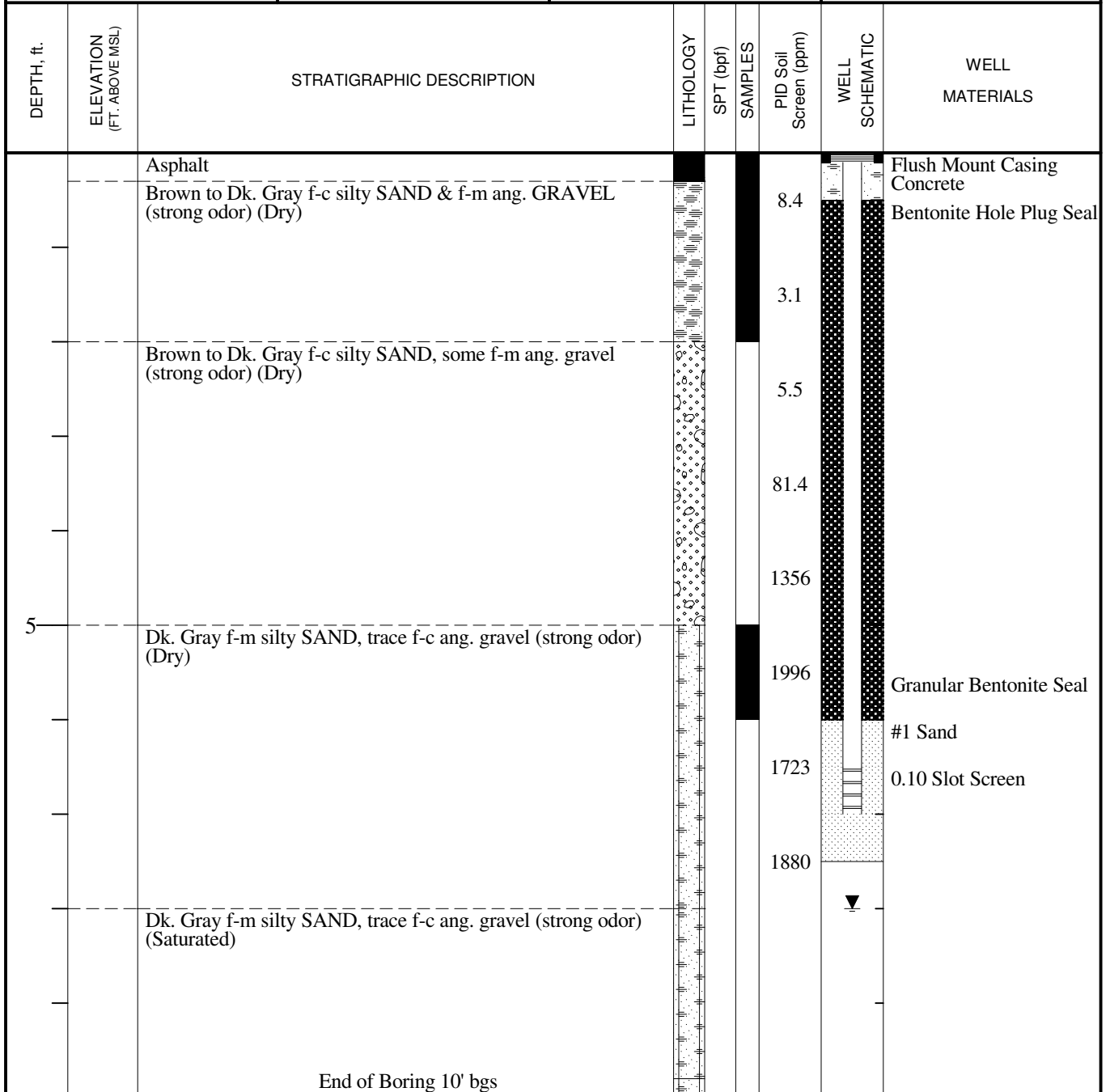
Date Started: 12/19/08  
Date Finished: 12/19/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.



## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MSP

Depth to Water: 8.00 ft bgs  
Date of Measurement: 12/19/2008  
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: VP-37 / SB-312

Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/13/09  
Date Finished: 1/13/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						Flush Mount Casing Concrete
		Brown med. SAND, w/ fine ang. subrounded gravel, well sorted (Moist) (Petroleum odor at 10')				0.0		Bentonite Hole Plug Seal
						0.0		
						0.0		
						0.0		
						0.0		
5						0.0		
						0.0		
						1.2		
						2.4		
						3.0		Granular Bentonite Seal
						0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 12.50 ft bgs  
Date of Measurement: 1/13/2009  
Project No.: 19998083.00003

URS No. VP-37 / SB-312



# Soil Boring Log

Boring No.: VP-37 / SB-312

Monitoring Well No.: N\W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 1/13/09  
Date Finished: 1/13/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15		Brown med. SAND, w/ fine ang. subrounded gravel, well sorted (Saturated)				106		#1 Sand
		Grayish Brown well sorted med. SAND, w/ fine ang. subrounded gravel (Saturated)				23.1		0.10 Slot Screen
		End of Boring 15' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 12.50 ft bgs  
Date of Measurement: 1/13/2009  
Project No.: 19998083.00003

URS No. VP-37 / SB-312



# Soil Boring Log

Boring No.: VP-38 / SB-249

Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/19/08  
Date Finished: 12/19/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						Flush Mount Casing Concrete
		Brown to Dk. Brown f-c silty SAND & f-m ang. GRAVEL, f-c brick frags, trace clay (Dry)				0.0		Bentonite Seal
						0.0		
						0.0		
		Brown to Dk. Brown f-c silty SAND, w/ some f-m ang. gravel, f-c brick frags, trace clay (Dry)				2.2		
						0.0		
5		Brown f-m silty SAND, some f-c ang. gravel (Dry)				2.4		
						0.0		
						0.0		
						6.1		Granular Bentonite Seal
						0.0		

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MSP

Depth to Water: 15.00 ft bgs  
Date of Measurement: 12/19/2008  
Project No.: 19998083.00003



# Soil Boring Log

Boring No.: VP-38 / SB-249

Monitoring Well No.: N\W

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 12/19/08  
Date Finished: 12/19/08

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
15		Brown f-m silty SAND (Moist)				26.5	#1 Sand	
						21.4	0.10 Slot Screen	
						329		
						1111		
						1964		
		End of Boring 15' bgs					▼	

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MSP

Depth to Water: 15.00 ft bgs  
Date of Measurement: 12/19/2008  
Project No.: 19998083.00003

URS No. VP-38 / SB-249



# Soil Boring Log

Boring No.: VP-39 / SB-250

Monitoring Well No.: N/W

Project: The Dow Chemical Company  
Philadelphia, PA

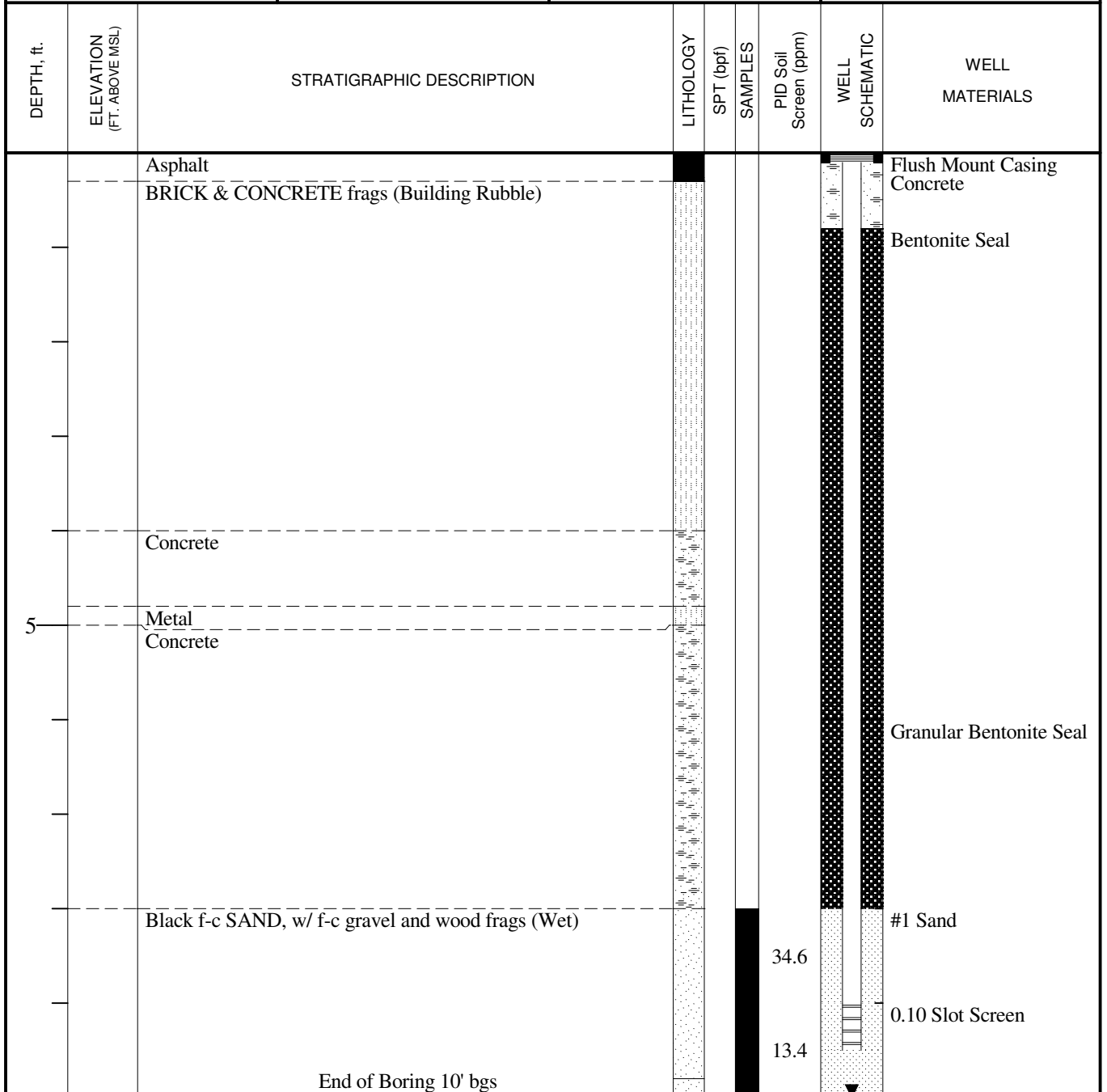
Date Started: 1/22/09  
Date Finished: 1/22/09

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.



## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Eichelbergers  
Drilling Method: Geoprobe 6620DT  
Field Inspector: JTB / MC

Depth to Water: 10.00 ft bgs  
Date of Measurement: 1/22/2009  
Project No.: 19998083.00003

URS No. VP-39 / SB-250



# Soil Boring Log

Boring No.: VP-40  
Monitoring Well No.:

URS No. VP-40

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 3/30/17  
Date Finished: 3/30/17

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						Flush Mount Casing Concrete
		Dk. Brown f-c sandy SILT, abundant brick frags (Dry)						Bentonite/ Grout Mixture
		Dk. Gray f-c sandy SILT, abundant brick frags (Dry)						Bentonite Seal
								#1 Sand
5								Stainless Steel VI Screen
		Dk. Gray f-c sandy SILT, abundant brick frags (wet)						
		End of Boring 7' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Parratt-Wolff  
Drilling Method: Hand Auger  
Field Inspector: GSC

Depth to Water: 6.00 ft bgs  
Date of Measurement: 4/3/2017  
Project No.: 19998083.00003



Soil Boring Log						Boring No.: VP-41		Monitoring Well No.:	
Project: The Dow Chemical Company Philadelphia, PA				Date Started: 3/30/17 Date Finished: 3/30/17					
Survey Location: N E		Ground Elevation: ft.		Inner Casing Elevation: ft.		Outer Casing Elevation: ft.			
DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS	
		Asphalt						Flush Mount Casing Concrete	
		Brown f-c sandy SILT, abundant brick and slag frags (Dry)						Bentonite/ Grout Mixture	
								Bentonite Seal	
								#1 Sand	
5		Dark Brown f-c sandy SILT, abundant brick and slag frags (Dry)						Stainless Steel VI Screen	
		Dark Brown f-c sandy SILT, abundant brick and slag frags (wet)							
		End of Boring 7' bgs							

Notes:

ppm = parts per million  
 bgs = below ground surface

bpf = blows per foot  
 N/W = No Well Installed

(a) = Analytical sample collected  
 = water level at completion

Driller:	Parratt-Wolff	Depth to Water:	6.00 ft bgs
Drilling Method:	Hand Auger	Date of Measurement:	4/3/2017
Field Inspector:	GSC	Project No.:	19998083.00003

URS No. VP-41



# Soil Boring Log

Boring No.: VP-42  
Monitoring Well No.:

Project: The Dow Chemical Company  
Philadelphia, PA

Date Started: 3/30/17  
Date Finished: 3/30/17

Survey Location: N  
E

Ground Elevation: ft.

Inner Casing Elevation: ft.

Outer Casing Elevation: ft.

DEPTH, ft.	ELEVATION (FT. ABOVE MSL)	STRATIGRAPHIC DESCRIPTION	LITHOLOGY	SPT (bpf)	SAMPLES	PID Soil Screen (ppm)	WELL SCHEMATIC	WELL MATERIALS
		Asphalt						Flush Mount Casing Concrete
		Brown gravelly SAND with some silt, abundant cobbles (Dry)						Bentonite/ Grout Mixture
		Orange Brown gravelly SAND with some silt, abundant cobbles (Dry)						Bentonite Seal
								#1 Sand
5								Stainless Steel VI Screen
		Brown gravelly SAND with some silt, abundant cobbles (wet)						
		End of Boring 7' bgs						

## Notes:

ppm = parts per million

bpf = blows per foot

(a) = Analytical sample collected

bgs = below ground surface

N/W = No Well Installed

▼ = water level at completion

Driller: Parratt-Wolff  
Drilling Method: Hand Auger  
Field Inspector: GSC

Depth to Water: 6.00 ft bgs  
Date of Measurement: 4/3/2017  
Project No.: 19998083.00003